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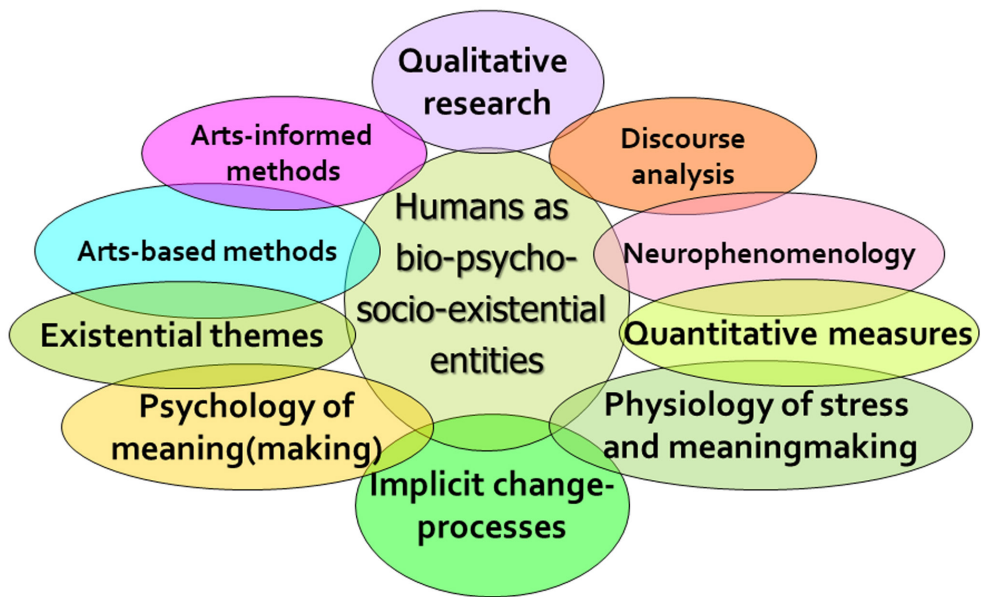
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Anna Gerge 2016

PSYCHOTHERAPEUTIC DEVELOPMENT – ASSESSMENT OF PICTURES

THROUGH DEVELOPMENT OF THE SATPA – A SAFETY
ASSESSMENT TOOL OF PICTORIAL ARTEFACTS

**BY
ANNA GERGE**

DISSERTATION SUBMITTED 2017



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Anna Gerge



AALBORG UNIVERSITY
DENMARK

Dissertation submitted for the Degree of Doctor of Philosophy

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CV

Anna Gerge was born in Sweden in 1958. She took her BSc at Gothenburg University, followed by a university diploma in folk high school education at Linköping University, and a BA and MSc with a major in biology at Stockholm University. Anna is a lic. psychotherapist, cert. expressive art therapist, accredited consultant in EMDR and a teacher and supervisor in psychotherapy. Anna has worked for nearly 20 years as a teacher/lecturer at various universities, colleges, folk high schools and high school in psychology and science, including subjects such as creativity training, communication skills, special education for adult people with retardation and psycho-education for health-promotion and life changes for clients with Diabetes Mellitus type II. For the last 20 years, Anna has been running her own business as a psychotherapist, supervisor and lecturer of psychotherapeutic work. In her clinical work, she specializes in the treatment of complex traumatization and dissociation. In the last 10 years, she has supervised the treatment of complex trauma and dissociation at several specialist psychiatry units in Sweden. Anna has also been a lecturer in leadership and organizational development at the institution for Learning, Informatics, Management and Ethics, LIME, Karolinska Institute, KI and consulted in workplace psychology. She has presented various aspects of her clinical and scientific work within the field of complex trauma and psychotherapy at congresses and universities in several European countries, USA and Egypt. She is the author or editor of more than ten clinical books and has translated several psychiatric assessment tools in the field of trauma/complex trauma/dissociation to Swedish.

DECLARATION

I hereby declare that neither this thesis nor part of the thesis have previously been submitted for a higher degree to any other University or Institution in Denmark or abroad.

Anna Gerge

Date

ENGLISH SUMMARY

Title of the study: Psychotherapeutic development – Assessment of pictures through development of the SATPA – a safety assessment tool of pictorial artefacts

Research questions

Main questions:

1. Can pictorial artefacts be assessed according to the concept neuroception (Porges, 2003a,b, 2011), defined as a continuous, partially unaware assessment of whether situations are safe, worrying or life-threatening. Will different patterns of neuroception show up as meaningful units in pictorial artefacts?
2. If so, can these patterns be part of an assessment tool for pictorial artefacts?

Sub-questions:

3. How can results from such a newly developed assessment tool of pictorial artefacts be understood in relation to other measures, e.g. self-assessed overcome traumatization and other variables on existential health?
- 4) How can these understandings be theoretically conceptualized in relevant contemporary psychotherapy theory?

Research design: By building upon existing methodologies, an understanding of semiotic signs in pictorial artefacts (Gerge & Pedersen 2017), and clinical experiences in combination with the interpretivist stance, the development of an assessment tool to facilitate the decoding of pictorial artefacts was conducted. The assessment tool was called the Safety Assessment Tool of Pictorial Artefacts, (SATPA). It was developed through qualitative analyses of clinician made drawings, $N = 269$, including 244 drawings + 25 elaborated mandala drawings (Gerge, 2017), and through arts-based inquiry (Gerge, Wärja, & Pedersen, 2017a, b), based on aesthetic response (Gerge, 2017, submitted), in the form of interpretivist methods. Eleven perspectives were found in the (SATPA). These were analysed by separate groups of clinicians and lay persons (Gerge, Gattino, & Pedersen, 2017, submitted), where all groups found similar patterns in the evaluated pictures. Finally, in the exploration of the developed instrument, measured changes in parameters of self-assessed health pre-post arts-based psychotherapy interventions for women medically treated for gynaecological cancers (Wärja, 2018, in press), co-variated with the analyses of their artwork pre-post the interventions, when analysed by two evaluators using the (SATPA) (Gerge, Wärja, Gattino, & Pedersen, 2017, submitted).

Furthermore, the 63 pictures conducted by a sub-group ($n = 28$) of the research clients who completed the intervention ($n = 43$ out of $N_{\text{tot}} = 57$) in the study of Wärja,

Bergmark, & Bonde (2012) were analysed pre-post arts-based psychotherapy interventions (Wärja, 2018, in press). The detected change was related to quantitatively analysed changes in self-assessed measures (scales for depression, anxiety and Quality of Life). The scales applied were; MADRS; Montgomery & Åsberg, 1979; anxiety, Hospital Anxiety and Depression Scale; HADS-A; Zigmond, & Snaith, 1983; quality of life; European Organization for Research and Treatment of Cancer (EORTC-QLQ-C30 Quality of Life Questionnaire; Aaronson, Ahmedzai, & Bullinger, et al., 1991).

The methods used in the development of the SATPA are deliberately mixed and chosen to reflect an interpretivist stance (Hiller, 2016; Wheeler, 2016) and to include arts-based methodology (Viega, 2016a). This methodology is based on the neurophenomenological paradigm and offers an enactment-focused epistemological approach. Finally, quantitative calculations were conducted. The choice of methodology is reflected on in the linking text.

This dissertation includes the following articles:

I: Gerge, A. (2017). What does safety look like? Implications for a preliminary resource and regulation-focused art therapy assessment tool. *The Arts in psychotherapy*, 54, 105-121. doi: 10.1016/j.aip.2017.04.003

II: Gerge, A. (2018, April). Revisiting the Safe Place — Method and Regulatory Aspects in Psychotherapy when Easing Allostatic Overload in Traumatized Patients. *International Journal of Clinical and Experimental Hypnosis*.

III: Gerge, A. (2017, submitted). Answering from the center: Arts-based research for knowing more. Manuscript submitted for publication. *International Journal for Applied Positive Psychology*.

IV: Gerge, A., & Pedersen, I. N. (2017). Analyzing pictorial artefacts from psychotherapy and art therapy when overcoming stress and trauma. *The arts in psychotherapy*, 54, 56-68. doi: 10.1016/j.aip.2017.02.001

V: Gerge, A, Gattino, G, & Pedersen, I. N. (2017, submitted). What do we See when Looking at a Picture? – Preliminary Evidence of Validity in a Recently-Developed Safety Assessment Tool of Pictorial Artefacts, (SATPA). *Arts in Psychotherapy*.

VI: Gerge, A., Wärja, M., Gattino, G, & Pedersen, I. N. (2017, submitted). The Body in the Mind – the Appearance of the Phenomenological Self Assessed through Pictures Before and After an Arts-based Psychotherapy Intervention for Gynaecological Cancer Survivors. *Arts in Psychotherapy*.

VIIa: Gerge, A., Wärja, M., & Pedersen, I.N. (2017). Using aesthetic response - A poetic inquiry to expand knowing. Part I: The Rx6-Method. *Voices: A World Forum for Music Therapy*, 17(1), <http://dx.doi.org/10.15845/voices.v17i1.890>.

VIIb: Gerge, A., Wärja, M., & Pedersen, I.N. (2017). Using Aesthetic response, a poetic inquiry to expand knowing. Part II: Some theoretical perspectives on arts-based

research. *Voices: A World Forum for Music Therapy*,17(1), doi: 10.15845/voices.v17i1.913

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DANSK RESUME

Titel: Psykoterapeutisk udvikling - vurdering af billedartefakter, der gør det muligt at skelne mellem oplevelser af sikkerhed i neuroception.

Forskningsspørgsmål: 1. Kan billedartefakter vurderes meningsfuldt i forhold til begrebet neuroception, det vil sige en kontinuerlig, delvist ubevidst vurdering af om situationer er sikre, bekymrende eller livstruende (Porges, 2003a,b; 2011). Vil forskellige neuroceptionsmønstre vise sig som meningsfulde enheder i billedartefakter? 2. Hvis ja, kan disse mønstre indgå i et vurderingsredskab til billedartefakter? 3. Hvordan kan resultater fra et nyligt udviklet vurderingsredskab til billedartefakter forstås i forhold til andre effektvariable, f. ex. selvvalueret overvindelse af traumatisering og andre eksistentielle sundhedsvariable? 4. Hvordan kan disse forståelser teoretisk begrebsliggøres i forhold til relevant moderne psykoterapi teori?

Forskningsdesign: Ved at bygge på eksisterende metoder og en teoretisk forståelse af semiotiske tegn i billedartefakter (Gerge & Pedersen 2017), samt kliniske erfaringer kombineret med en interpretivistisk epistemologi, blev der udviklet et vurderingsredskab med det formål at lette afkodningen af billedartefakter: *Safety Assessment Tool of Pictorial Artefacts* (SATPA). Vurderingsredskabet blev udviklet gennem kvalitative analyser af klinikeres tegninger (Gerge, 2017), kunstbaseret undersøgelsesmetodik (Gerge, Wärlja, & Pedersen, 2017ab), baseret på æstetisk respons (Gerge, 2017, indsendt), alle som interpretivistiske metoder. SATPAs 11 identificerede perspektiver blev analyseret af forskellige grupper af klinikere og lægfolk (Gerge, Gattino, & Pedersen, 2017, indsendte), og det viste sig at såvel klinikere som lægfolk fandt lignende mønstre i de undersøgte billeder.

I forbindelse med spørgsmålet om det udviklede instruments egenskaber, blev forskningsklienters tegninger analyseret før/efter kunstbaserede psykoterapi-interventioner. Analyser af to evaluatore foregik ved hjælp af SATPA (Gerge, Wärlja, Gattino, & Pedersen, 2017, submitted). Der blev fundet co-variation mellem parametre for selvvalueret sundhed før/efter-interventioner og analyserne af tegningerne hos de kvinder, som tidligere havde fået medicinsk behandling af gynækologiske kræftformer (Wärlja, 2018, in press), og som nu havde deltaget i kunstbaseret psykoterapi. Billeder før/efter de kunstbaserede psykoterapiinterventioner i Wärljas studie (2012-2017), som blev udført af en undergruppe ($n = 28$) af de 57 forskningsklienter, blev analyseret ved hjælp af SATPA. De påviste ændringer blev sammenlignet med ændringerne i forskningsklienternes selvvalueringer, via kvantitative selvvalueringsskalaer for depression, angst og QoL. Følgende skalaer anvendes i den komparative analyse:

Depression: MADRS (Montgomery & Åsberg, 1979).

Angst: Hospital Angst og Depression Scale; HADS-A (Zigmond, & Snaith, 1983).

Livskvalitet: Den Europæiske Organisation for Forskning og Behandling af Kræft; EORTC-QLQ-C30 (Aaronson, Ahmedzai & Bullinger et al., 1991).

Den anvendte undersøgelsesmetode har bestået af en bevidst blanding af enkeltmetoder og måder at tænke på, ud fra en interpretivistisk epistemologi (Hiller, 2016; Wheeler, 2016), med inddragelse af kunstbaserede metoder (Viega, 2016a), alt sammen med det formål at fremme udviklingen af SATPA. Denne blandede metode er baseret i det neurofænomenologiske paradigme og tilbyder en enactment-fokuseret epistemologisk tilgang

Endelig blev der foretaget kvantitative statistiske beregninger på de resultater som blev opnået gennem analyser ved anvendelse af SATPA. De metodologiske konsekvenser af udvalgte videnskabsteoretiske positioner i afhandlingen, interpretivistisk fortolkning og den endelige positivistiske validering, diskuteres afslutningsvis i forhold til metodevalg.

Afhandlingen indeholder følgende artikler:

I: Gerge, A. (2017). What does safety look like? Implications for a preliminary resource and regulation-focused art therapy assessment tool. *The Arts in psychotherapy*, 54, 105-121. doi: 10.1016/j.aip.2017.04.003II:

Gerge, A. (2018, April). Revisiting the Safe Place — Method and Regulatory Aspects in Psychotherapy when Easing Allostatic Overload in Traumatized Patients. *International Journal of Clinical and Experimental Hypnosis*.

III: Gerge, A. (2017, submitted). Answering from the center: Arts-based research for knowing more. Manuscript submitted for publication. *International Journal for Applied positive Psychology*.

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CHAPTER 1. BACKGROUND & CONTEXT

*Our pictures are pictures
of us
ourselves, reflected
in each other
Your darkness
is also my darkness*

*Are the images born only as protection against
the world?
Not all the pictures!
Some are cracking
the limits
of the temporarily
existing world
They are born
from the cracks of the world*

*The images are therefore materials, and explosives
for the intelligence
for the only reason
we have*

Göran Sonnevi, p. 375, *Det omöjliga*, (The impossible, second part, 1-257, part of number 224, translation Anna Gerge.)

States and signs of reduced arousal, increased positive affects, heightened self-efficacy, and self-esteem, are considered important parameters in this thesis when assessing pictorial artefacts (PAs), conducted in therapy. By aiming at the experience of heightened safety, the clients' wellbeing can be enhanced (Ruysschaert, 2014), and in particular traumatized clients can become treatable when clinicians conceptualize, reach, and regulate these clients' implicit processes and memories. Thus, signs of presence or lack of implicit regulation ought to be searched for.

These signs, related to overcoming traumatization and a re-established experience of safety, as well as the concept of neuroception, were defined as identifiable via the use of an appropriately designed assessment tool. One such was developed (study 2abc).

Part of this thesis was conducted within the framework of the analysis of a set of artefacts and written statements collected as a part of a data corpus involving data from 57 participants' PAs, gathered in a randomized trial with parallel group design developed by Wärja, Bergmark and Bonde (2012), (study 1 and study 3). Thus, this study was partly: (a) a joint project within the framework of two PhD-thesis at the Doctoral Program of Music Therapy, Department of Humanities, Aalborg University, and; (b) an inquiry into 122 non-clinical informants' drawings and 116 informants' plus 30 informants' ratings (see section 3.2). These analyses combined with literature studies (Gerge & Pedersen, 2017), and the clinical experience of the researcher, were used to build a Safety Assessment Tool of Pictorial Artefacts, (SATPA) (Gerge, 2017). The developed assessment tool was preliminary validated and further elaborated by findings from an arts-based inquiry (Gerge, 2017, submitted). In this undertaking the arts-based research-method Rx6 (Gerge, Wärja, & Pedersen, 2017ab) was developed and used. Lastly, the tool was validated by other raters (Gerge, Gattino, Pedersen, 2017, submitted) and on a clinical population (Gerge, Wärja, Gattino et al., 2017, submitted).

This PhD study is based upon the articles that originated from these undertakings. Their contents are presented in section 1.4. and summarised in Chapter 4. Some readers might find it helpful to initially approach this thesis through examples of PAs, see appendix C.

Taken together, the seven articles of this PhD study and the linking text of this book may lay the ground for more valid and clinically reliable assessment of PAs, through the newly developed tool, (SATPA), or by tools that this work might inspire. Such undertaking might also include further development of arts-based inquiries as methods of analysis.

The thesis may add to a renewed interest of PAs as measurable variables of psychotherapeutic processes and outcomes, including a potential to bring together phenomenological and physiological aspects with PAs as valuable proxy measures of neuroception as an outcome. Rehabilitation and therapy processes of severely traumatized clients would supposedly thrive from an enhanced understanding and interest of their inner worlds from such perspectives.

1.1. PERSONAL MOTIVATION

The decision to embark on a PhD study was personal interest. My theoretical preconceptions were eclectic. Considering my background as an artist, an expressive art therapist, a clinically experienced psychotherapist and teacher and supervisor of

psychotherapy, specialized in psychotraumatology and resource-oriented psychotherapy, including clinical hypnosis, I have been obsessed, with the questions, how do humans heal, and which valid signs for such processes are recognizable? Thus, my quest as a clinician was to understand more about how signs of integration and overcoming dysregulation in psychotherapy could be recognized in pictures, and how these co-variated with implicit processes. I also wanted to become more theoretically nuanced as a supervisor of psychotherapeutic work, and deepen my understanding of implicit change processes and find robust tools for helping clients and supervisees to acquire new skills and insights. My question was, what signs might correspond to states of retaken or earned phenomenological (existential, psychological, and physiological) safety? On this array I also became interested in interpretivist research methodology, the axiological stance, arts-based inquiry, and the concept of neurophenomenology, a paradigm based in our understanding of how biologically hardwired we are, and relational, and obsessed with meaning-making. By being living bodies we create, communicate, and negotiate meaning, where the experiencing self becomes a narrating self and ultimately an integrated mind aiming at kindness and compassion (Damasio, 2012; de Waal, 2010; Siegel, 2016). Varela (1996) asked for an integration between modern cognitive science and a disciplined approach to human experience. He coined this approach neurophenomenology, namely a method for studying first-person experiences alongside third-person accounts of cognition (Fazelpour, Thompson, 2015; Lutz and Thompson, 2003). According to Lifshitz, Cusumano, & Raz (2013), researching neurophenomenology involves at least three challenges: (1) helping participants to specific experiential states, (2) fostering meta-awareness of the experience, and (3) gathering first-person descriptions of those states.

I was interested in developing my preunderstandings about such partly preconscious processes, safety as a concept, and symbolization in PAs as a possible proxy outcome measure of psychotherapy. Through the entire PhD research process, I consistently found these wishes fulfilled, thus making it a rewarding and enriching experience on both the emotional (the arts-based inquiry and being in touch with the informants' and research clients' artefacts) and intellectual level (including the interpretivist approach and the axiological stance). Lastly, I found myself interested in scientific methods and how interpretivist findings can be adequately validated by quantitative measures, and what is lost and gained through such a process.

Overall, I wanted to see if the pictorial image, with seemingly infinite complexity, could be analysed in a meaningful way according to a robust contemporary neuro-affective concept as neuroception. Jung stated ‘‘Whoever speaks in primordial images speaks with a thousand voices ... The creative process, so far as we are able to follow it at all, consists in the unconscious activation of an archetypal image, and in elaborating and shaping this image into the finished work’’ (Jung, 1978; cited in van der Berk, 2012, p. 403). These aspects of images and pictorial artefacts as multifaceted and endlessly associative – as our implicit realms are – made the project of assessment of PAs both complicated and worthwhile. Such undertaking could

possibly offer an avenue to therapists interested in healing-processes and in-depth psychology, independently of their supposed psychodynamic or CBT-orientation. In particular, therapists based in arts-based methods could find such an assessment tool of PAs particularly useful. Thus, the PA, as a source of information in therapy and research, as a mean to make explicit the implicit, as a gateway to deepened understanding of experiences, including the experience of safety, seemed worth investigation.

By investigating the possibility to assess PAs, and potentially add a meaningful and easy to use tool to the field, I hoped to re-establish the interest of image formation and symbolization in therapeutic processes as a main core of psychotherapy. From such an understanding the use of arts- and ASC-based methods in clinical practice can grow. This aim was fuelled from my conviction that psychotherapeutic encounters thrive from the joint exploration of the internal world of the client, and thus need to go beyond merely behaviour activation.

1.2. INTRODUCTION

It was previously investigated if PAs could be related to the concept of neuroception (Porges, 2003, 2011). Neuroception describes how neural circuits can distinguish whether particular situations or people are experienced as safe, dangerous, or life threatening. In this thesis, neuroception was hypothesized to be a robust conceptualisation of current states of the subconscious mind (Brenner, 2014; Schore, 2014; Watkins & Watkins, 1997). The neurophysiology-based hypothesis of neuroception relies on a description of a sub-conscious information processing of the limbic system of the mid-brain, and is highly relevant in relation to theorizing patients' capacities to change and soothe heightened arousal-levels, and thus go from allostatic load to homeostatic regulation (Sterling & Eyer, 1988). The capacity for self-soothing (Krystal, 1988) can be theorized to rely on a sufficiently safe neuroception, and can be enhanced by a hypnotic safe place induction (Brown & From 1986; Erickson, Rossy & Rossi, 1976; Gerge, 2018 in press; Frederick & McNeal, 1999), and methodologies frequently incorporated in the resource-oriented arts- and altered states of consciousness, (ASC) based psychotherapies.

1.2.1. THEORETICAL AND EXPERIENTIAL UNDERPINNINGS

The PA was hypothesized to be an interesting proxy measure, when measuring processes of change, toward a neuroception of safety in therapy, and art therapy. The PA is at least partly created on levels beneath what is expressed verbally, and thus constitutes our lived story gathered at preverbal levels (Brown & Fromm, 1986; Hass-Cohen & Clyde Findlay, 2015; Maack, 2012; van der Kolk, 1994, 2014). The American Art Therapy Association, AATA (2013) defined the goal of art therapy as improving or restoring a client's functioning and his or her sense of personal well-being. AATA (2013) also stated that art therapy practice requires knowledge of visual

art, the creative process, human development, psychological, and counselling theories and techniques (p. 1, <http://arttherapy.org/upload/whatisarttherapy.pdf>).

According to Spring (2004) art therapy enhances symbolization of sensory-perceptual elements, and stimulates integration of the traumatic event (if the client is traumatised) by image conversion through language translation. Thus, the client can, through the artistic endeavour, experience an embodied experience and integrate it to what can be said and thought of – as a narrative.

By highlighting the last decades' research on, relational psychodynamics, affective neuroscience, and psycho-traumatology, certain principles can be drawn on how this knowledge can contribute to systematic approaches when assessing PAs concerning clinical work (Geller & Porges, 2014) and especially as assessment in arts- and ASC-based therapies. As stated in Gerge, Gattino and Pedersen (2017, submitted) several projective tests have previously been developed, as; Draw-a-Person-in-the-Rain (DAPR) (Willis, Joy, & Kaiser, 2010), Person Picking an Apple from a Tree, (PPAT) (Eytan & Elkis-Abohuff, 2013), The Kinetic Family Drawing, (KFD) (Fury, Carlson, & Sroufe, 1997; Goldner & Scharf, 2011), and the Draw-A Person: Screening Procedure for Emotional Disturbance, (DAP: SPED) (Naglieri & Pfeiffer, 1992) for enabling clinicians to understand the internal structures made visible. Also, projective tests asking for non-human motifs have been developed, for example the Bird's Nest Drawing, (BND) (Goldner, 2014; Kaiser, 1996, Sheller, 2007) and relational and affective signs in the artwork (Howard, Razuri, & Call, 2017).

By studying lack or presence of experienced safety in pictures, processes of recuperation and psychological rehabilitation can supposedly be assessed through pictorial artefacts conducted in therapies, according to the initial validation of the developed tool. In this thesis, the preliminary validation of the Safety Assessment Tool of Pictorial Artefacts, (SATPA), pointed to its potential as a possible outcome-measure of therapy processes related to changed neuroception. An offspring of this research might be a renewed interest in projective tests. If the appraisal of PAs is such a solid process of gaining information, as this thesis suggests, then tools and tests previously validated should be more utilized. Since the appraisal processes of persons suffering from PTSD differs from the appraisal of those with no withstanding traumatization (Talwar, 2007; Vermetten, Dorahy, & Spiegel, 2007), it might be particularly interesting to develop non-verbal screening instruments differentiating PTSD-sufferers from non-clinical populations. Un-symbolized, and unintegrated experiences are part of the posttraumatic condition, therefore assessment in the post-trauma gradient ought to link to the implicit. Until traumatized clients are able to integrate previously dissociated experiences, states and affects, their verbal or written accounts may be biased due to their avoidance, since traumatic experiences of the past influence the current functioning of a traumatized person (Herman, 1992; Schiltz, & Schiltz, 2013).

Thus, the PA, seen as a product or sign of an implicit change-process, can be related to over-came traumatization, including posttraumatic growth, and regained agency. This could be of certain interest in psychotherapy methods where endpoints might be conceptualized as image- and identity formation (Horowitz, 1983, 2014; Stern, 1985, 2010; Schaverien, 1991; Chodorow, 1991; Wigram, Pedersen & Bonde, 2002; Wheeler (Ed.), 2005, 2015; Brenner, 2014). This encompasses arts therapies and psychodynamic psychotherapy, where implicit change processes are conceptualized as important aspects of the therapeutic endeavour (Erkkilä, Punkanen, & Fachner et al., 2011, Shedler, 2010). The developed tool may add a dimension giving access to implicit realms, as a complement to verbal or written accounts.

Psychodynamic psychotherapy is a variety of theoretical and methodological constructs (McWilliams 1984, Gabbard, 2004, Bromberg, 2006; Shedler, 2010, Fosha, 2009; BSPSG, 2002, 2010), which operates on an interpretive-supportive continuum (Leichsenring & Schauenburg, 2014; Leichsenring, Leweke, & Klein, 2015). Successful treatment will not only relieve symptoms but also foster the positive presence of psychological capacities and resources – wellbeing. This is an important aspect of relational psychodynamic psychotherapy, the contemporary dominant sub-category of psychodynamic psychotherapy. The approach includes specific theories for inter-connectedness (Gaensbauer, 2016). These rely on attachment-theory, affect-theory, and theories of “minds in their making” (Schoore, 2001ab). By efforts to help the patients to explore their feelings, needs, motives and relationships, a psychodynamic psychotherapy will partly involve a joint project of understanding the individual's life history – the narrative. Such an understanding could potentially be nuanced through information given in PAs.

1.2.2. CHANGES IN PAS, CONDUCTED IN THERAPY AS PROXY MEASURES OF CHANGES IN NEUROCEPTION.

A paradox seems to be that the deeper we go into the ontological layers of our clients or research participants, the more we need our understanding of contemporary affective neuroscience and arousal-levels (third-person perspective). Although, at the same time we need to let go of pre-understandings and just delve into experiencing the phenomena and what that awakens in us (first-person perspective). Such an approach can be understood from a preunderstanding of attachment based interpersonal psychology, theory-of-mind (Carlson, Koenig, & Harms, 2013), and our innate capacity of inter-connectedness (Ammaniti & Gallese, 2014; de Waal, 2010; Rizzolatti, Fadiga, Fogassi, & Gallese, 1999; Siegel, 2016). Our brains are in Gallese's words ‘we-centric’ (Gallese, 2009), and we can feel the other person's arousal levels and affects, and be afflicted on an embodied felt-sense level by other persons' appearance, and of their created artefacts. This is an important aspect of the arts-based inquiry, as exemplified in Gerge, Wärja, and Pedersen (2017ab), Gerge (2017, submitted) and in joint attention (Hawes, 2016), a concept central in art therapy.

1.3. TERMINOLOGY

In the following section some conceptual building-blocks of the thesis will be briefly presented.

Embodied felt sense was described by Gendlin (1978) as a bodily sensed knowledge called a felt sense, where he develops Merleau-Ponty's (1945/1963, 1962, 1973) ideas thus highlighting how interaction is more fundamental than perception. "The body senses the whole situation, and it urges, it implicitly shapes our next action. It senses itself living-in its whole context - the situation" (Gendlin, 1992, p. 345). This bodily interaction opens to a sense of the world beyond what we conventionally call perception. The body-sense can encompass perceptions and emotions, but also memories of past situations and options of what to do next. This embodied felt sense grounds our conscious awareness, in line with Damasio's notion – that a thought is an ongoing description of a state in the body (1995, 1999, 2012). There is a lack in everyday language to name these crucial processes, but in the therapeutic practice of Focusing (Gendlin, 1978) it is called the "felt sense", and is described as an embodied tacit knowing, as a special kind of interoception based internal bodily awareness, a body-sense of meaning (Gendlin, 1978). Bullington (1999) distinguishes that the word "body" in German language would encompass both *Leib*, originally referring to "self", "person" and/or "life" and *Körper*. Where *Körper* refers to the thing aspects of the body. Bullington (1999, p. 211) further stated that terms as "lived body" and "embodiment" are used to reinvoke the connection between life and body.

Embodied mind/embodied cognition is the notion that all aspects of cognition are shaped by aspects of body experience. These aspects include the motor system, the perceptual system, the body's interactions with the environment (situatedness) and the ontological assumptions about the world that are built into the body and the brain. From such building-blocks aspects of embodied cognition, and higher levels of functioning, are derived. In line with neurophenomenology (Lutz, Thompson, 2003, Fazelpour, Thompson, 2015), human beings can be defined as second order cybernetic systems (Maturana & Varela, 1987) that process information as we are interacting with the world (Jeuk, 2017; Thompson 2011; Thompson & Stapleton, 2009). These embodied cognitive processes might include advanced human performance as reasoning or judgment, namely metaphorical processing, where (Lakoff & Johnson, 1980/2003, 1999, Gallese & Lakoff, 2005) suggested that our understanding of familiar physical objects, actions and situations (such as containers, spaces, trajectories), that we handle through our bodies, are used to understand other even more complex domains (such as mathematics, relationships or the concept of law or life and death). Lakoff and Johnson (1999) argues that all cognition is based on knowledge derived from the bodily experience and that other domains are mapped onto our embodied knowledge through a combination of conceptual metaphors, image schemas and prototypes, including body self-efficacy (Wiedenhofer, 2017). Philosopher Alva Noë, (2004, 2005, 2007, 2009) defined our (embodied) actions as

prerequisites for perceptions. Consciousness is from such a perspective not something that happens inside us, or to us. It is something we do – through enacting and embodying ourselves together with others (Carroll, 2017; Mortensen, 2013).

Body Image. According to the *A Dictionary of nursing* (2014) body image, or body schema, is defined as the individual's concept of the disposition of his limbs and the identity of the different parts of his body. Body image, BI, is also a person's perception of the out-looking's of the own body, including aesthetics and sexual attractiveness, though, it is more than that. There is no general definition of the concept *body image*, although in this thesis the original definition with its roots in depth psychology and psychoanalysis (Schilder, 1935/1978) is used in conjunction with the phenomenology of Maurice Merleau-Ponty (1945/1963, 1962, 1972), and findings from contemporary neuroscience, where a neurophenomenological stance is taken. Thus, defining the BI as an ongoing appraisal of the existential, phenomenological and physiological body experience. Although a person's BI may be a product of personal experiences, personality, and various social and cultural forces, it is still nevertheless something related to the physiology and enactments of the lived body. A body which can be seen, touched and moved, The BI can be conceptualised as an unconscious representation (Anzieu, 1989; Hanley, 2004) under dynamic construction, by the activity of self-apperception that is made available by multimodal and synaesthetic perception and activity. These images might operate at the level of what Freud (1900/1976) referred to as primary process thinking and that Schore (2014) called the deep unconscious – the body. BIs are seen as building blocks for our ongoing construction of self and identity. The self is a lived embodiment that can be characterized as a feeling of continuity with respect of time, space and causality (Federn, 1952). Without the experience of embodiment, we have no experience of self. Contemporary neuroscience (Damasio 1995, 1999; LeDoux, 1996; 2002; Cozolino, 2002, 2006; Siegel 2003, 2007, 2010) emphasizes the ongoing felt sense experience as central for an ongoing experience of the BI and the self, as does the neurophenomenological position (Lutz, Thompson, 2003, Fazelpour, Thompson, 2015).

From an enactivistic stance, a human being is a primary affective and sensemaking embodied living system (Colombetti, 2014a,b, 2017; Thompson, 2007; Varela, 1992). The signification and enactivation of the body unfolds in interactive cooperation with the environment, thus bringing forth a self, a world and an embodied self as part of this world (Merleau-Ponty, 1945/1963). A world that is an ongoing living experience (Husserl, 1929/1969; Merleau-Ponty, 1962) where the BI then constitutes the phenomenon of such self, reflected as a part of this world (an organism in an organism-environment system). From such perspective the BI is seen as an ongoing signification of both the self and the environment. Incorporating both mind (unconscious and conscious mental actions and their content) and matter (brain, body and the material environment) (Merleau-Ponty, 1945/1963, 1962, Nijenhuis, 2017), a BI can be defined as the appraised sum of a phenomenal self's experience of the lived body and it's images of itself at a given time.

Body Image (BI) has been discussed both as a cognitive neuroscience concept (Berlucchi & Aglioti, 2010; Longo, Azañón, & Haggard, 2010; Longo & Haggard, 2012) and as a possible measure on cognitive-behavioural stance in clinical work (Cash, 1994; Cash & Labarge, 1996), particularly in the case of eating disordered clients (Askevold, 1975; Cash & Deagle, 1997; Dalley, Dalley, & Vidal, 2013; Meermann, 1983) and in relation to post cancer experiences (White, 2000; Wärja, 2018, in press). Although, the nature of the BI has been investigated, where implicit body representation partly seemed to be distinct from the conscious BI (Longo & Haggard, 2012) and body dissatisfaction seemed even more pronounced than body-distortion in eating-disordered clients, compared with healthy controls (Cash & Deaver, 1996), there is much still remaining. While meta-analyses of the clinical literature (Longo & Haggard, 2012) have revealed dissociations between depictive and metric measures of BI in eating disorders vis-à-vis healthy controls (Cash & Deagle, 1997), where increased shame and BI dissatisfaction predicted increased drive for thinness through decreased self-compassion (Ferreira, Pinto-Gouveia, & Duarte, 2013), the results of Longo and Haggard (2012) showed that we compare our bodies more accurately to a visual depiction of a body than to a non-body object, where they suggested that body representations emerging from somatosensation may have a broader influence on perception and cognition than previously suspected. Lucas and Koff (2017) investigated impulse buying tendencies among young women related to body image, using scales for experienced physical attractiveness, and level of satisfaction with the own appearance, Multidimensional Body-Self Relations Questionnaire-Appearance Scales (MBSRQ-AS; Cash, 2000), and the Body-Image Ideals Questionnaire (BIQ; Cash & Szymanski, 1995). They found that body image variables were associated with the affective, but not the cognitive, dimension of the impulse buying tendency. Managing or repairing negative affect was associated with appearance concerns (body dissatisfaction) which could motivate impulse buying. BI disturbances, measured by the body stigma subscale, might be especially important to take into account in breast cancer survivors when assessing their sexual functioning (Boquiren, Esplen, & Wong, et al., 2016), since women who experienced greater body shame reported significantly greater BI disturbances and poorer QoL post-treatment (Boquiren, Esplen, & Wong, et al., 2013). How these findings correspond to experienced and changed BIs post-cancer, including heightened risk for development of PTSD in breast cancer and other types of malignancies (Chan, Ng, Taib, Wee, Krupat, & Meyer, 2017), has not, to our knowledge, been researched. Neither has how client-drawn pictures of their own body potentially can be proxy measures of BIs.

Neuroception. It is hypothesized that the inner working models (Bowlby, 1969/1983, 1973, 1980) of clients need to change in order for the enhancement of health and wellbeing, particularly in cases where clients suffer posttraumatic conditions. In many such cases unconscious implicit non-functioning patterns are maintained (Schore, 1994, 2003, 2009) and as such can be conceptualized as aroused neuroception (Porges, 1995, 2011) or allostatic load (Sterling & Eyer, 1988). Porges stated three well-defined neuronal pathways in the central nervous system, related to different

activation-patterns of the ventral vagus nerve: the social engagement system, the system for motion (fight-flight) and the system for immobilization. Depending on which part of the ventral vagus complex that is activated at a certain moment, a neuroception will be formed (Porges, 2001, 2003, 2007, 2009). The concept of neuroception is hypothesized to be an unconscious on-going perception of whether situations, particularly in the social context, are safe or threatening. Even though the concept of neuroception has been criticized from other physiologists, namely Grossman & Taylor (2007), neuroception appears as an adequate hypothesis to describe how human beings experience their perceived reality, including the information from their innate systems, related to safety and threats. The appraisal of neuroception depends on how the environment is perceived: safe, dangerous/ambivalent or life threatening. We need to experience situations as sufficiently safe to be able to process information, which occurs when we are inside our windows of tolerance, WoT (Siegel, 1999). WoT can be defined as the arousal levels in which a person is awake, calm and sufficiently safe to have the potential for curiosity, sociability and learning in the social context. Inside our WoT we can reflect, instead of react, and events can thus become experiences. If a person has problems with staying inside her/his WoT, internal states over time can become triggers that activate an experience of unsafety.

1.3.1. PRELIMINARY ASSUMPTION

From the here depicted perspectives, effective psycho-social interventions in rehabilitation-medicine and psychotherapy ought to be: (a) resource-oriented (Maslow, 1962/1968; Procter; 2002; Seligman & Csikszentmihalyi, 2000, Priebe, Omer, & Giacco, 2014); (b) address implicit functioning (Langer, 1953; LeDoux, 1996; Cozolino, 2002; Carr, 2014, Hass Cohen & Clyde Findlay, 2015), and; (c) retaken bio-psycho-socio-existential health. The therapy induced changes ought to be possible to experience on an embodied felt sense level, namely a bodily based ongoing self-narrative ought to be accompanied by changes in the perceived embodied felt-sense. The felt sense can be considered an embodied statement of being in the world, which ought to be possible to register in conducted PAs. The use of arts- and ASC-based therapeutic interventions on relational psycho-dynamic ground, be it for example art therapy (Hass-Cohen & Carr et al., 2008), active music therapy (Erkkilä, Punkanen, & Fachner et al., 2011), receptive music-therapy (Grocke & Moe, 2015; Rudstam, Elofsson, & Sondergaard et al., 2017; Wärja, 2018, in press), guided affective imagery (Ranch with Gerge, 2013), or clinical hypnosis (Watkins & Barabasz, 2008), might be of certain value in this work, thus adding a holding environment on implicit levels of both client and therapist, namely the shared togetherness on implicit levels by induction of co-creative trance-states (Gerge, 2013, 2018, in press). These processes can in arts-based psychotherapy sometimes be condensed as *art as co-therapist* (Robbins, 1980, 1987, 1988, 1994; Trondalen 2007).

1.3.2. SAFETY AS THEORETICAL CONSTRUCT

The experience of the present moment as sufficiently safe – so-called epistemic trust – is a precondition for learning, and is, according to Fonagy and Luyten (2015), described as the individual's willingness to consider communication conveying new knowledge from someone as trustworthy, generalizable and relevant to the self. Neuroception is our hypothesized ongoing unconscious assessment if situations, especially in the social context, are; (a) safe, (b) somewhat threatening, or (c) extremely threatening. It has long been described as a psychodynamic "truth" that patients become curious when they feel relationally safe. This is an important goal of relational psychotherapy, rooted in psychodynamic thinking (Winnicott, 1971; McWilliams, 1984; Krystal, 1988; Bromberg, 2006). We can thus contribute to a change capability in psychotherapy by offering an empathic relation as part of the method. Then the therapeutic relationship can provide a new experience of security – thus new understanding – and a new world of togetherness can be enacted as a joint project of client and therapist. Thus, clients can find a more optimal balance between tension and relaxation, and subsequently between negative and positive affects, as human beings will become curious when they feel relationally safe (Nathanson, 1992, 2009). Thus, defining signs of safety and curiosity in PAs may add to the understanding of how changes in long-standing dysregulation, including trauma-related symptomatology (Cloitre, Garvert, & Brewin et al., 2013; Cloitre, Jackson, & Schmidt, 2016; Powers, Fani, Carter, Cross, Cloitre, & Bradley, 2017; van der Kolk, 1994, 2014; van der Kolk et al., 1996), can become visible in PAs. Through such an endeavour this thesis can nourish and sharpen therapeutic interventions addressing implicit functioning, including the retaken BI of an enhanced bodiliness of safety and agency. A certain scope of interest is given in survivors of gynaecological cancer where the disease, diagnosis and iatrogenic side effects of treatment can impact psychosocial, sexual and existential health, including the body's appearance and functions and development of posttraumatic conditions (Chan et al, 2017).

1.3.3. SITUATING THE PA IN CLINICAL WORK AND RESEARCH IN RELATION TO CONTEMPORARY AFFECTIVE NEUROSCIENCE AND PSYCHOTRAUMATOLOGY

PAs were hypothesized as offering a privileged way to notice implicit change processes. As conceptualized in contemporary neuro-affective theories and described by Cozolino (2002, 2006, 2017), Sander (2002) and Siegel (2002), Hass-Cohen, Clyde Findlay, Carr, d'Ardenne, & Sloboda et al. (2012) proposed that an important aim of art therapy is to heighten mental health through reregulating brain functions. In parallel to such perspectives it was of interest to look for how these changed patterns are related to valid theories of traumatization and overcoming trauma and how to identify what we should look for. This was considered in the investigation by Gerge & Pedersen (2017) of existing assessment tools in art therapy, where a heightened

interest in a neuro-affective perspective in art therapy was noticed. For example, Malchiodi (2012) took in consideration how the mind and body respond to traumatic events. According to Hass-Cohen and Carr et al. (2008), Hass-Cohen and Clyde Findlay (2015) and Schore (2012) neuronal circuits for rebuilding behaviour, images, emotions and cognitions are activated during art therapy. Also in arts therapy, and altered states of consciousness, ASC-based psychotherapeutic approaches as hypnosis (Hammond, 1990), Guided Affective Imagery, GAI (Leuner, 1966/1969), and arts-based methods steeped in methods relying on ASC e.g. the Bonny Method of Guided Imagery and Music, GIM (Bonny & Summer, 2002, Grocke & Moe, 2015) similar or parallel implicit processing is supposedly present. Thus, tacit knowledge (Polanyi, 1958, 1966, Vedfelt, 2017) can be brought into context and consciousness.

If the appraisal of PAs is such solid process of gaining information, as this study suggests (Gerge, 2017; Gerge, Gattino, & Pedersen 2017, submitted; Gerge, Wärja, Gattino et al., 2017, submitted) the development of non-verbal screening instruments might be of particular interest, particularly when relying on psychotherapy methods steeped in implicit and arts-based methodology. In addition, this is of interest when differentiating PTSD-sufferers from the non-clinical population since the appraisal processes of persons suffering from PTSD differs from the appraisal of those with no withstanding traumatization (Vermetten, Dorahy, & Spiegel, 2007). We know that traumatized persons display massive efforts to protect their psyche, frequently involving mechanisms such as denial, dissociation and avoidance (Herman, 1992, van der Kolk, 2014; Vermetten, Dorahy, & Spiegel, 2007).

When we imagine an act of art making, our central nervous system is activated, and changes in inner schemas, basic assumptions and attachment-patterns occur (Tomkins, 1995; Schore 2012). The drawn picture makes the inner scape visible to other parts of the personality, as to another person (Gerge, 2010, Gerge & Pedersen, 2017; Hass-Cohen & Clyde-Finlay, 2015; Watkins & Barabasz, 2008). When discussing the validity of using arts in research, Hogan (2016) pointed to the possibility to offer “ways of understanding interiority through an anthropological paradigm that views inner states as being in progress, rather than ever static” (Hogan and Pink, 2010, p. 160). This may be an important achievement in psychotherapy, especially with clients suffering posttraumatic conditions (Avrahami, 2006; Hass-Coen & Clyde-Findlay, 2015, Richardson, 2016), since restoring the perception of change and fluidity as a possibility, might ease the phenomenology of the ongoing frozen trauma-time, often experienced by the PTSD-sufferer. The drawn or painted image constitutes a concrete transition area with the opportunity to move between primary and secondary process in a resource-activating way. Thus, imagery is both connected with and created by our inner and outer reality – the landscape vis-à-vis the inner scape – of the past and present, and has the potential of giving us directions into the future (Gerge, 2018, in press; Gerge, 2017).

1.3.4. A PARADOX – LOW EVIDENCE BUT HIGH THEORIZED VALUE OF THE ARTS-BASED METHODS

An American Art Therapy Association (AATA) survey (Spiegel, Malchiodi, & Backos et al., 2006) highlighted seven primary therapeutic mechanisms in art therapy in the treatment of combat-related PTSD. Four of them were explicitly resource oriented, namely: 1) reduction of arousal, 2) reactivation of positive emotion, 3) enhancement of emotional self-efficacy, and 4) improved self-esteem. A paradox is seemingly offered in the low level of evidence of the arts and ASC-based therapies, in relation to the theorized value of the methods. The evidence levels are low in the field of psychotraumatology (Droždek, 2015; Gray, 2011), and in rehabilitation medicine, where Boehm, Cramer, & Staroszyński et al. (2014) noted that no conclusion could be drawn regarding the effects of arts therapy on pain, functional assessment, coping, and mood states, although, they did state that arts interventions may have beneficial effects on anxiety in patients with breast cancer. Archer, Buxton, & Sheffield (2015) concluded initial evidence for CPIs (creative psychological interventions) benefitting adult cancer patients with respect to anxiety and depression, quality of life, QoL, coping, stress, anger and mood; with no evidence suggesting that any one type of CPI was particularly beneficial. Results from Hertrampf and Wäjas' (2017) systematic review suggest that arts-based interventions may be effective for improving psychological outcomes for women in rehabilitation from breast and gynaecological cancer. Solid research on the evidence is required, both to increase the evidence level and to conceptualize aspects of the methodology. Boehm, Cramer, & Staroszyński et al. (2014) concluded that art therapy in oncology can be theorised as well suited and offers a possibility to identify and reflect on the parallel-running processes that are present on the different physical and emotional states within the individual. Although reasonable, these types of studies will not heighten the evidence level for the methods discussed due to contemporary trends in the research community. This thesis will hopefully add plausible theory and methodology to current understanding. Furthermore it may offer a possibility to distinguish and document changes in states and arousal levels through assessment of PAs conducted in therapies. Through such method development, the thesis can add to the methodological rigor and reliability demanded in contemporary health care settings and clinical research.

1.4. METHODS OF ANALYSIS

Due to the complexity of the art and arts therapy endeavour, the specific art therapy techniques applied (Forzoni et al., 2010; Luzzatto, 2012), the relational adaptations of psychodynamic therapy (Erkkilä, Punkanen, & Fachner, et al., 2011; Hawes, 2016), and other procedures, the processes of interpretation of PAs would be very complex, apart from their innate multifaceted layers of possible meaning.

1.4.1. PHILOSOPHY OF SCIENCE – A MULTIPARADIGMATIC APPROACH

In this PhD study an interpretivist stance was taken focusing on qualitative methods where the outcomes were finally validated through quantitative measures. The path taken was enactivistic and can be labelled as neurophenomenology (Lutz, Thompson, 2003, Fazelpour, Thompson, 2015; Varela, 1987). This is a pragmatic phenomenological approach (Froese, 2011; Merleau-Ponty, 1945/1963, 1962) ultimately based in Wittgenstein's quotation "The limits of my language mean the limits of my world." (§ 5.6 Wittgenstein, 2014 [1921]), though, he ends his *Tractatus* with a request to the reader to "surmount these propositions; then he sees the world rightly" (§ 6.54 Wittgenstein, 2014 [1921]). To see the world rightly, can from a postmodern perspective be hypothesised as the possibility – and necessity – to go in relation to the world we are enacting and part of (Hutto, 2013), and see it in its multiplicity (Estrella & Forinash, 2007). We also need to take a first-person perspective, and personalize our experience (Northoff, 2003, 2010; Northoff & Heinzl, 2006). As the limits of our reason not necessarily have the same limits as our experience (Froese, 2011; Järvilähti, 2015) the position described by Stern is recommended "one cannot get to the lived experience and stay there while talking about it. But that does not stop me from thinking about it and approaching as close as I can." (Stern, 2004, p.xiii).

1.4.1.1 The Research Path Unfolding in Artefacts

The enactivistic path undertaken here unfolded in several research artefacts. Firstly articles based in qualitative or arts-based methodology; Using aesthetic response A poetic inquiry to expand knowing, part I and II; The Rx6-Method (Gerge, Wärja & Pedersen, 2017) and Some theoretical perspectives on arts-based research (Gerge Wärja, & Pedersen., 2017). These articles were developed in parallel with concepts built in Answering from the Center – Arts-based Research for Knowing More (Gerge, 2017 submitted). The thesis was additionally built from two articles aimed at theoretical conceptualizations Revisiting the Safe Place — Method and Regulatory Aspects in Psychotherapy when Easing Allostatic Overload in Traumatized Patients (Gerge, 2018, in press) and Analyzing pictorial artefacts from psychotherapy and art therapy when overcoming stress and trauma (Gerge & Pedersen, 2017), These articles constitute a rationale in the building of the Safety Assessment Tool of Pictorial Artefacts, (SATPA) and reflect the generative process summarized in: (a); What Does Safety Look Like? – Implications for a Preliminary Resource and Regulation Focused Art Therapy Assessment Tool (Gerge, 2017). The developed tool was complemented in (b); What do we See when Looking at a Picture? – Preliminary Evidence of Validity in a Recently-Developed Safety Assessment Tool of Pictorial Artefacts, (SATPA).(Gerge, Gattino, Pedersen, 2017, submitted), where an internal validation was undertaken through partly quantitative analyses of the response patterns of the informants. These were reflected on in relation to qualitative analyses of the

informants' motivations of their chosen assessments of the evaluated PAs. Finally, (c); the article *The Body in the Mind – the Appearance of the Phenomenological Self Assessed through Pictures Before and After an Arts-based Psychotherapy Intervention for Gynaecological Cancer Survivors* (Gerge, Wärja, Gattino et al., 2017, submitted) consists of an external validation of the SATPA in a clinical group.

Albeit based in neurophenomenology, (see section 1.4.2), the thesis can be viewed from a constructivist tradition where the world is explored through an interpretivist perspective (Wheeler, 2016). Qualitative methods are used since they are well suited for exploration of new areas of knowledge, or areas of knowledge not previously verbalized (Golafshani, 2003; Guillemin, 2004; Kvale 1995, 1997). Analyses of artefacts together with Margareta Wärja, was conducted through thematic analysis (Braun & Clarke, 2006), (unpublished), and through arts-based research (McNiff, 1992, 2005, 2008; Leavy, 2015, Viegas, 2016ab). The findings of the interpretivist based research-process, influenced by arts-based research methods was at its perceived endpoint, namely the (SATPA), reflected vis-à-vis quantitative outcome-data from the randomized trial with parallel group design developed by Wärja, Bergmark and Bonde (2012), Wärja (2018, in press). Overall, the validation process of the instrument was semi quantitative.

1.4.2. EPISTEMIC UNDERPINNINGS

This thesis is an undertaking in the constructivistic tradition. An enactment-focused epistemological approach was built from a neurophenomenological perspective acknowledging the need for bio-psycho-socio-existential models of assessments in clinical work. Under way interpretivistic and postpositivistic analyses were conducted.

1.4.2.1 Epistemic preclusions

Presently, in 2017, no theoretical model of the human mind and behaviour can be entirely psychological. Interventions and assessments ought to be consistent with what we know about the neurobiological activity in the brain (Cozolino, 2002, 2017). This can be conceptualised from a perspective of complexity theory (Siegel, 2003), where second order cybernetics (Maturana & Varela, 1987) rests on the premise that the definition of the system also includes the observer, and the system's change capability with a certain focus on growth and morphogenesis in real life. This might include arousal levels and the self-soothing capacity of the defined system.

Previously Pierre Janet stated:

‘The personality is a human construct, generated by human beings with whatever means they have at their disposal. The principle of life, however it is defined, has led to the conception of a body. This principle of life has

brought language, movements and society; these conditions, determined by language, movements, and society, have forced human minds to construct personalities; the personality is a work of art build by people, for better or worse, incomplete and imperfect.`

(Janet, 1929, pp. 502-503).

This work of art is partly shaped through the language and movements of the contextualised body, enrolled in culture – both in the outer world and in the interior of the human mind. Thus, we need to reflect on levels of interpretation, related to our definitions of this changing subject – here a human being as a bio-psycho-socio-existential entity. Such phenomenological self will have phenomenal experiences and conceptions of self, world, and self as a part of this world. PAs were considered valid enough measures of the phenomenology of such entities, where humans can be defined as being genetically hardwired for experiencing, getting touched and reflect. We are, according to Thompson & Cosmelli (2011), sense making systems. From a postpositivistic position nothing has meaning in and of itself, meaning is not predetermined. Living organisms try to make sense of the world as they find it (Varela 1987), and there are no subjects without a material and social world. Subjects and objects are co-occurrent, co-constitutive, and co-dependent. Meaning is generated through “enaction” (Degenaar & O’Reagan, 2017) and dependent on embodiment (De Jesus, 2016), as we are bodies in a world (Merleau-Ponty, 1945/1963; Thompson & Cosmelli, 2011). We experience, perceive, and conceive the world and everything in it from an “I”-perspective, a particular first-person perspective, and with a particular interest (Varela, Thompson, & Rosch, 1993). This process is based in both intuitive processing and controlled and conscious thought (Järvilähtö, 2015).

Thus, the developed tool encompasses the first-person and third-person perspectives (Northoff, 2003); (a) first-person perspective – re the phenomenal experience, (b) a quasi-second-person perspective I-Me, myself, mine relationship – re the phenomenal judgment, (c) second-person perspective, I-You relationship – re the phenomenal judgment, and, finally (d) third-person perspective, the I-object relationship – re the physical judgment of physical facts.

Thus, the (SATPA) can be used in corporative relationships, where subjects together can experience and observe aspects of the world as shared objects *and* as a tool to assess pictures. Such enactive undertaking can ultimately be egalitarian, cooperative, and communicative. It can aim at emancipatory and transformative new information, and can be an embrained, embodied, and environmentally embedded undertaking (Thompson & Cosmelli, 2011). In such cosmology, scientific rigor involves participatory sense-making, where useful information is potentially found from both the first person and third person perspective, encapsulating also the possibility to resonate to the object as a subject in an I-Thou-relation (Buber, 1993). Information gathered from such undertaking can potentially guide therapists to knowingly enact interventions within the present and potential reach of their clients.

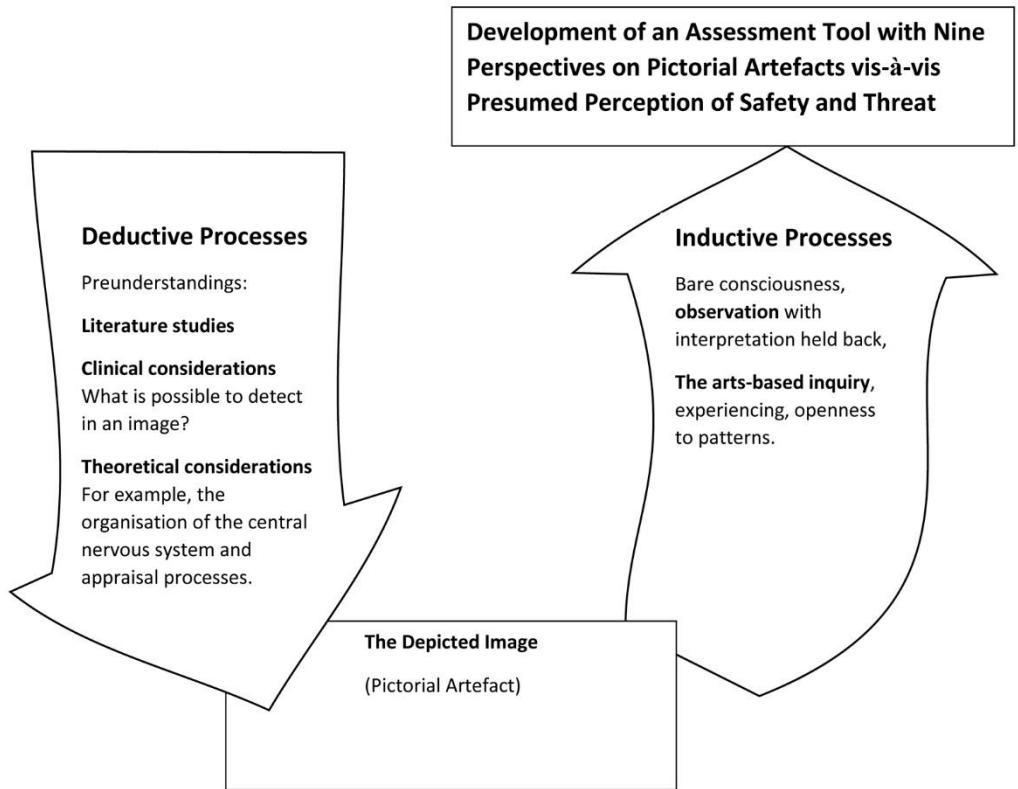
The tool will hopefully enable clinicians to become attuned to the phenomenal experience (first-person perspective), and thus be enabled to conduct informed phenomenal judgments (quasi-second-person perspective and second-person perspective), and physical judgments (third-person perspective) concerning the shared artwork of their clients. The phenomenology of such undertaking has an emancipatory potential and can lead to heightened experiences of safety and shared togetherness, which can free the potential of joy and curiosity, and with it the capacity for change.

1.4.3. CHANGES ON THE WAY – THE INTERPRETIVIST STANCE AS A PATH-FINDING PROCESS

The development of this thesis is based on my interest in both epistemological assumptions and practical outcomes that have a clear relevance to everyday clinical work. This is reflected in the methodology chosen, namely a theoretically informed experience-based and method generative approach (enactive neurophenomenology). Under the process of conducting the thesis I found some of the concepts I initially wished to investigate far too complex and evasive to grasp through the PA as a proxy measure. For example, the construct implicit change-processes was a too complex endeavour. Thus, the changes in the aim of the thesis *from* investigating and developing interpretation tools of PAs (as proxy measures of implicit change-processes and how these could be related to parameters of experienced health; Gerge, 2015, unpublished manuscript), *to* an assessment tool trying to identify states and arousal levels in relation to experienced fright and safety, namely neuroception. Thus, potentially offering a tool to facilitate the capability of clinicians to recognize and nurture states of safety in clients.

Through the research process, my interest was in “user-friendly”-validity, namely if those who might use the results will find the results relevant. This motivated the partially quantitative analyses, presented in articles five and six, where the informants’ pictures and evaluations were used to preliminary validate the developed tool. Though, as the analysed units of meaning were PAs, which we commonly experience and evaluate on implicit levels, an ABR-approach, including an axiological stance, seemed wise to incorporate – not as an adding – on top of the qualitative endeavour, though as a core of the process of being with the data. Such approach might also be considered truthful to clinical work as it is carried out in “everyday” clinical practice. Under this process the stipulated need of having verbal accounts/titles on the pictures (Gerge & Pedersen, 2017) showed to be un-necessary (Gerge, Gattino, & Pedersen, 2017, submitted). Thus, the information found in the research process changed the way further information was gathered. The tool was built from a total analysis procedure which can be labelled as latent, theoretical or deductive, content analysis with elements of an arts-based inquiry, see figure 1 (Gerge, 2017), and was additionally complemented with two additional perspectives due to arts-based research, ABR (Gerge, 2017, submitted).

Figure 1. A description of the latent, theoretical/deductive, content analysis with elements of an arts-based inquiry (Gerge, 2017).



In the process of conducting this PhD-study I acquired incipient research skills in following research methodologies; quantitative, arts-based and qualitative, where the latter two are contained within an interpretivist frame. I gained insights possible to bring back to clinical and supervisory work.

The next step from this mainly theory and method generating thesis, would be to use the developed and partly validated tool as an outcome, among others, to assess results in studies, including RCTs, which also respond to contemporary requirements of research criteria within health care settings. This could include, for example, to see if the tool will be a meaningful measure in studies that will add to Chochrane-reviews and high scorings in GRADE, and to see if the results of the assessments co-variate with objective end-notes as physiological measures.

1.4.4. ARTICLE-BASED TYPE OF THESIS

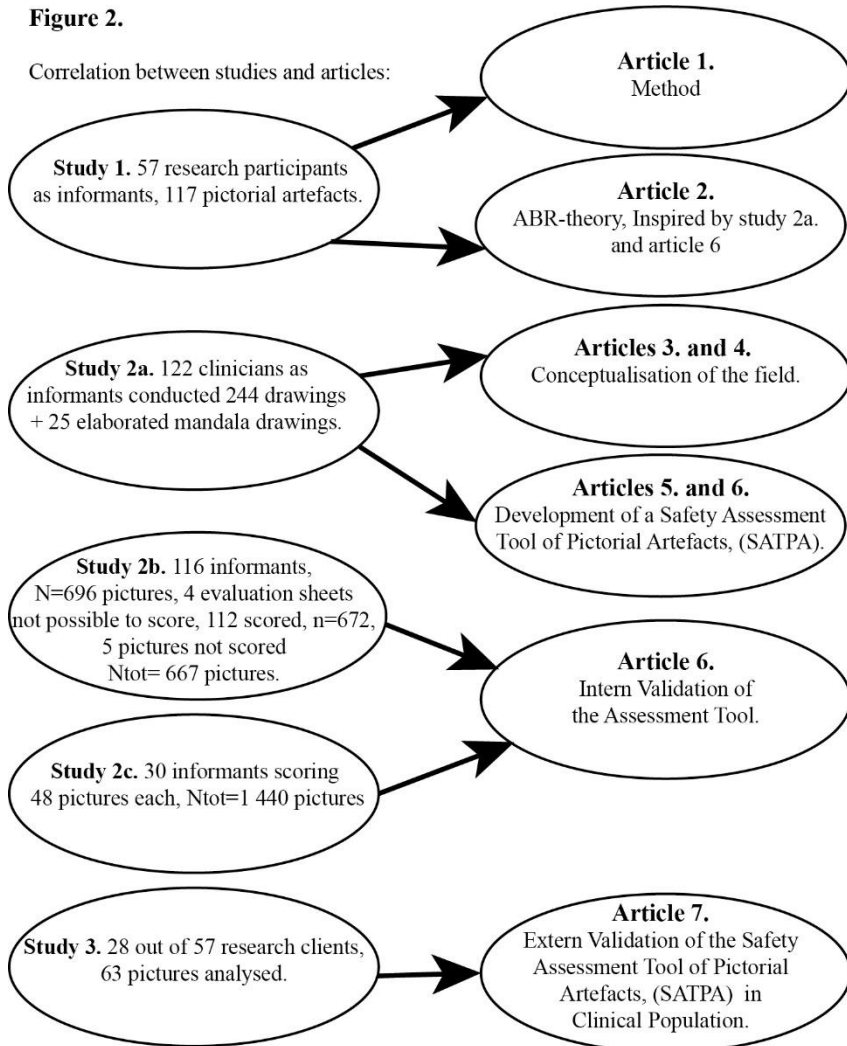
The Doctoral Programme in Music Therapy at Aalborg University recommends an article-based thesis. The process of publishing articles, not only after completion of the PhD, though during the enrolment, provided a useful learning experience in the practices of scientific publishing, including correspondence with editors and reviewers of international peer-reviewed journals. This was a very valuable part of the training and offered a possibility to carve out what I meant and understood in relation to how I could express myself.

1.5. OVERALL STRUCTURE OF THE THESIS

The whole PhD thesis is structured around articles to be published. As planned in my elaborate proposal for the PhD study *How to develop interpretation tools for evaluating artifacts concerning implicit change-processes in receptive music therapy/EXA - expressive art therapy* (unpublished manuscript) submitted to the Doctoral Programme four months into the study period, seven manuscripts have been submitted for publication in peer-reviewed journals over the course of my three-year study. At the time of submitting this thesis, three of the articles, including the divided article have been published, one is in press, while three manuscripts are currently under review (see Figure 2).

Figure 2.

Correlation between studies and articles:

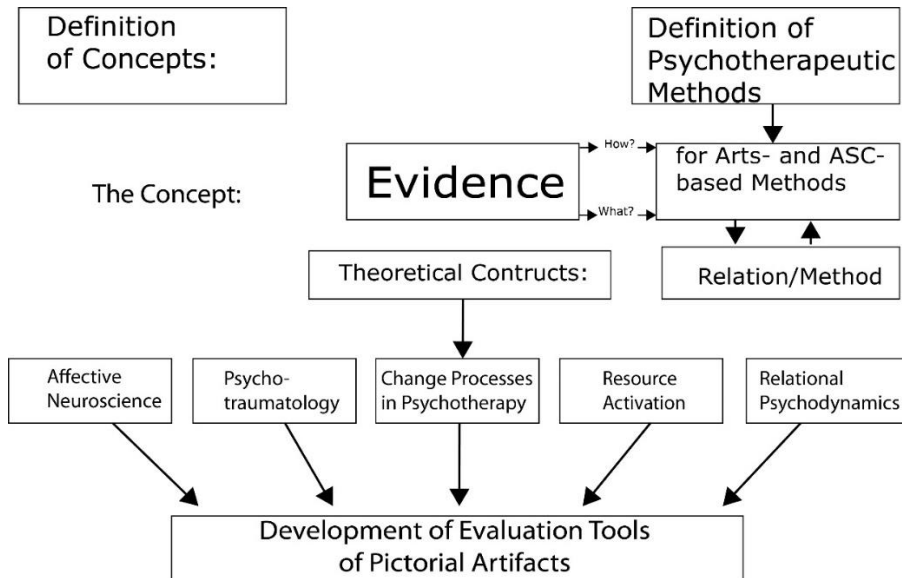


1.5.1. MAJOR CHANGES BETWEEN PLANNED THESIS AND CONDUCTED RESEARCH

Initially a literature review was undertaken, resulting in article III (Gerge & Pedersen, 2017), generating a preunderstanding brought into studies 2ab and c. The elaborated

proposal's (Gerge, 2015 unpublished manuscript) preunderstanding emanated from this undertaking:

Figure 3. Theoretical underpinnings (Gerge, 2015, unpublished manuscript):



From the conceptualisation undertaken, the lack and need of relevant assessment tools of PAs in relation to arousal-levels became evident. Due to unavoidable delays with contract obligations concerning the cooperation with the Wärja, Bonde and Bergmark (2012) study, the initial plan of the PhD was modified and the development of the (SATPA) was based on 122 nonclinical informants' and their 269 PAs, see study 2a (Gerge, 2017). Nine relevant perspectives for analysing pictures, in relation to the concept of neuroception, were identified. Two further perspectives appeared through a separate arts-based inquiry undertaken (Gerge, 2017, submitted).

The assessment tool consisting of 11 perspectives was subject to validation. An internal validation of perspective suitability and outcomes of the tool was performed on six pictures from each of the 116 informants (Gerge, Gattino, Pedersen, 2017, submitted). Furthermore, 30 informants analysed 48 pictures, concerning the picture content on whether the depiction concerned a worrying or reassuring clinical picture (Gerge, Gattino, Pedersen, 2017, submitted). Finally, an external validation of the tool was undertaken using clinical material from the Wärja study (2018, in press), where preliminarily data showed that the tool was a relevant proxy measure of implicit functioning and arousal levels, hypothetically in line with the concept neuroception (Gerge, Wärja, Gattino et al., 2017 submitted). An initial validation of the tool was

also conducted on client material from Torres (2015) study, although not published in the thesis, the process generated understanding reflected in the publications.

The initial plan of the thesis is presented in figure 4a, in contrast to the actual outline of the thesis and work performed, which is presented in figure 4b, see below.

Figure 4a. Flowchart in Elaborated Proposal (Gerge, 2015, unpublished manuscript):

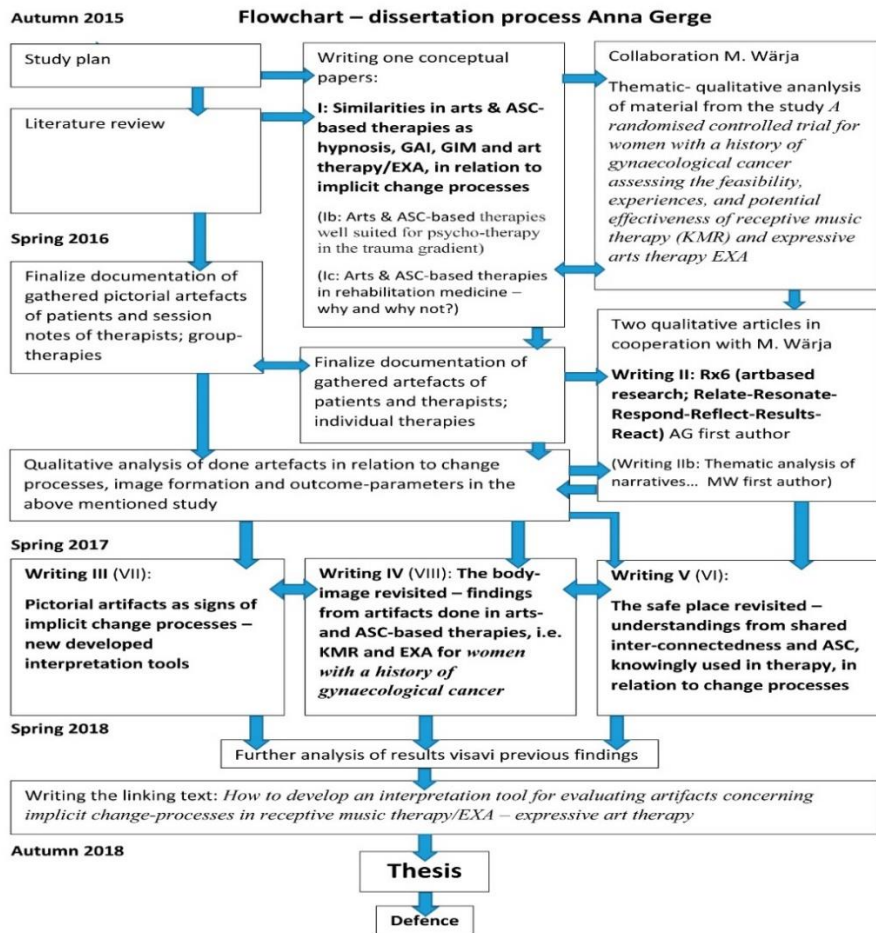
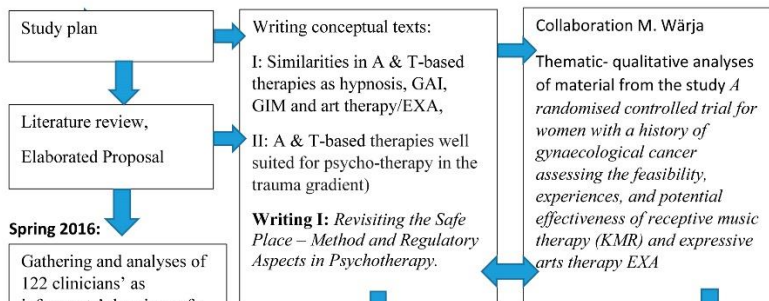
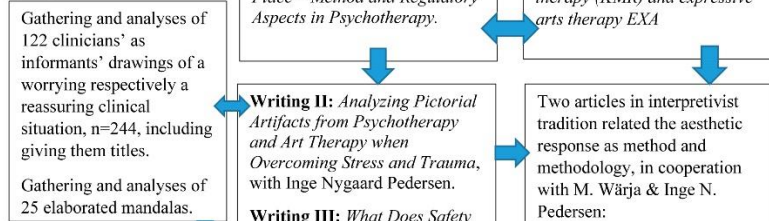


Figure 4b. Flowchart of what actually happened:

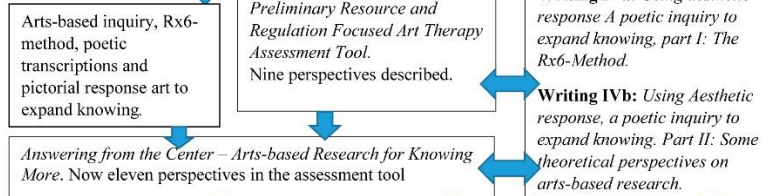
Autumn 2015:



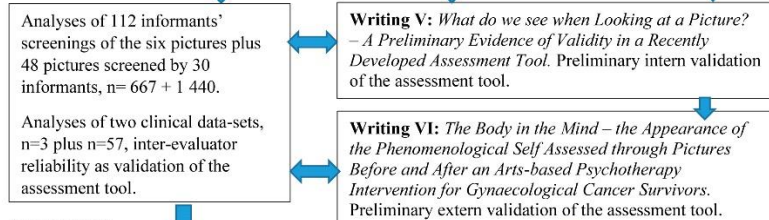
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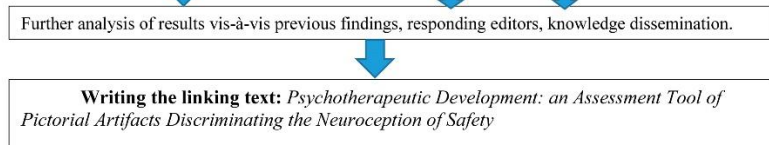
Summer - Autumn 2016:



Spring – Summer 2017:



Autumn 2017:



Spring 2018



1.6. LITERATURE SEARCHING FOR ART THERAPY ASSESSMENTS IN THE TRAUMA-GRADIENT

2016-04-17 a literature search on pictures assessment art therapy trauma was conducted (Gerge & Pedersen, 2017). Removing duplicates and irrelevant articles, three relevant peer-reviewed articles were identified; (a) Kin-Man Nan and Hinz (2012) “Applying the Formal Elements Art Therapy Scale (FEATS) to Adults in an Asian Population”, (b) Chirila and Feldman (2012) meta-analysis on how to improve the existing assessments used in art therapy, and (c) the seminal paper of Betts (2006). Chirila and Feldman (2012) studied 41 descriptive studies, and noticed the shortage of practical objective aspects in the assessments. Furthermore, 30 case studies and 22 controlled studies using established art therapy assessments were studied. Chirila and Feldman (2012) stated that the majority of the scales used failed to define the exact object of their assessment. A further problem was that; (a) the therapist’s opinions and involvement were treated as objective phenomena; (b) noticed changes in the clients were attributed to art therapy, and; (c) many therapeutic influential elements, apart from the art therapy intervention, were ignored. This is a reflection in line with Wampold and Imel’s (2015) finding regarding the general G-factor of psychotherapy as an important change agent.

A literature search on pictures assessment art therapy was also performed yielding 55 articles in total of which, 46 were peer-reviewed and 22 published during the last 5 years. One relevant article (Eytan & Elkis-Abuhoff, 2013) was found on indicators of depression and self-efficacy in the Person Picking an Apple from a Tree (PPAT) drawings (Gantt, 1990, 2001, 2004) of normative adults.

The search procedure was expanded to include relevant articles, books and book chapters related to assessment and interpretation of pictorial artefacts in clinical work and art therapy from the last 10 years. Assessment in art therapy was found to be used in; initial assessment (Gilroy, 2012), part of diagnostics (Betts, 2012; Eytan & Elkis-Abuhoff, 2013), differential diagnostics (Gilroy, 2012), as process measures related to the use of art materials and hypothesized activation patterns of the central nervous system (Barnet-López, Pérez-Testor, & Cabedo-Sanromà et al., 2015, Hinz, 2009; Lusebrink, Martinsone, & Džilna-Šilova et al., 2013). Computer based pictorial analyses was described (Kim, 2010), where the researchers found good congruence between human evaluators (art therapists with good inter-rater reliability) and computer-rating on ordinary pictures, but not on more complicated and unusual pictures. Also, Bojner Horwitz, Kowalski, & Theorell et al. (2006) used computer based pictorial analyses on self-figure drawings, analysed in relation to the amount of body details and percentage of used paper area, to evaluate changes related to therapeutic interventions in female fibromyalgia clients.

When searching for stress-/body-/trauma-informed connotation-systems to analyse pictorial artefacts, only one such system was found, namely, Lande, Lande, & Tarpley

et als' (2010) Combat Trauma Art Therapy Scale, that was adapted to work with veterans. The scale was developed from Appleton's (1990, 1993, 2001) assessment system related to art therapy trauma interventions in burn-units. These systems are adapted from Lee (1970), though are not specific to phase specific trauma treatment (Herman, 1992), nor to assess physiological dysregulation of withstanding traumatization, or traumatization that has been overcome. Betts (2006), inspired by Neale and Rosal (1993, p. 47), identified four ways by which art therapists may improve the quality of assessment in artefacts: (a) The use of objective criteria; (b) The establishment of interrater reliability; (c) The collection of data from a large number of subjects; (d) The duplication of data collection and appropriate analyses procedures to establish effectiveness and reliability of previously studied projective drawing instruments. (Betts, 2006, p. 430). From the compiled literature search it was considered that no specific assessment tool of PAs fulfilling Betts (2006) criteria existed with the aim of encompassing the bio-psycho-socio-existential phenomenology in relation to perceived neuroception. These criteria were further used as parameters of the preliminary internal validation (Gerge, Gattino, & Pedersen, 2017, submitted).

1.7. THE NEED OF AN ASSESSMENT TOOL OF PAS FOCUSED ON RESOURCING AND SAFETY

Research into implicit memory processes indicates that it operates through a different mental process than explicit memory (Cozolino, 2002; Cozolino & Santos, 2014; van der Kolk, 2014). Such research builds a strong rationale for why arts- and ASC-based therapeutic methods are of value in psychotherapy and related endeavours. Since artwork may connect to implicit regions of functioning and processing in privileged ways, the development of an assessment tool giving a comprehension on what to look for in PAs conducted in psychotherapy and the reason why seems a worthwhile endeavour.

An important aspect of the art-based artefact in (psycho)therapy is its capacity to bear witness of implicit processing and the art-making process' potential to integrate explicit and implicit functioning (Avrahami, 2006; Cozolino, 2002; Gerge, 2010; Hass-Cohen & Clyde Findlay, 2015; Sajnani, Marxen, Zarate, 2017; Spring, 2004). Art expression is proposed to assist in the recall, re-enactment, and integration of traumatic experiences (Avrahami, 2006; Gantt & Tinnin, 2007, 2009; Greenberg & van der Kolk, 1987; Johnson, 1987; Johnson, Lahad, & Gray, 2009; Richardson, 2016). In addition, signs of reduced arousal coupled with increased positivity, self-efficacy, and self-esteem are also important parameters to assess in PAs derived from therapy sessions. An understanding of the processes of traumatization and recovery, metaphorical processing, and pictorial semiotics is an important factor to consider when developing a suitable assessment tool, particularly if applicable in clinical settings, aiming at improving clients' treatment options and wellbeing and evaluators of understanding of implicit processing.

1.7.1. SEARCHING FOR THE POSITIVE

There is a significant gap in the research literature concerning the question of how positive emotions are expressed through art-making (Chilton, Gerber, & Council et al. 2015). They stated that scant data is available on the regulation of positive emotions even though research on positive psychology is growing (Cameron & Fredrickson, 2015; Kok, Coffey, & Cohn et al, 2013; Maslow, 1962/1968; Seligman, 1990/2006, 2002; Seligman & Csikszentmihalyi, 2002). According to Spiegel, Malchiodi, & Backos et al. (2006) four of seven aims of art therapy in the trauma-gradient are explicitly resource oriented: reduction of arousal, reactivation of positive emotion, enhancement of emotional self-efficacy, and improved self-esteem. An emphasis on positive psychology in the evaluation process of art therapy has previously been described (Betts, 2012; Chilton, 2013; Wilkinson & Chilton, 2013). The importance of positive emotions in shaping our beliefs, spirituality, and outlook has been stated by Van Cappellen et al. (2013). They suggest that certain positive emotions generate an upward spiral toward greater spirituality, which in turn leads to subsequent experiences of positive emotions. This thesis will not discuss spirituality per se, but the importance of positive emotions in inspiring awe, namely curiosity and joy as prerequisites of openness (Nathanson, 1992, 2009), change capability, and the phenomenological experience of beauty as part of the axiological stance, including the aesthetic response (Gerge, Wårja, & Pedersen, 2017b; Kenny, 2006, 2015, Viega, 2016a). Awe was found to be a potentially important aspect of the appraisal and internal reflexive process of the heuristic undertaking and the arts-based inquiry (Gerge, 2017, submitted). The experience of awe was conceptualized to open a new understanding and epistemological change – a new experiencing of self and world – in the arts-based inquiry.

1.8. A REFLECTION ON THEORETICAL UNDERPINNINGS FOR APPROACHES TO ASSESSMENT OF PAS

As presented in Gerge & Pedersen (2017), PAs have been used for initial assessment (Gilroy, 2012), diagnostics (Betts, 2012; Eytan & Elkis-Abohuff, 2013), differential diagnostics (Gilroy, 2012), process measures (Hinz, 2009; Lusebrink et al., 2013; Barnet-López et al., 2015), and in validating computer based pictorial analysis (Kim, 2010). Investigation of processes that occur during art therapy include studies on the artefact as a product, as a process variable, and the use of art materials, sometimes in connection to Expressive Therapies Continuum, ETC (Kagin & Lusebrink, 1978; Hinz, 2009; Lusebrink et al., 2013). ETC incorporates the approaches of several US art therapy pioneers to art therapy (art as therapy, gestalt art therapy, phenomenological art therapy, psychodynamic art therapy, and cognitive art therapy). The ETC consists of three stepwise levels; the Kinaesthetic/Sensory, Perceptual/Affective and Cognitive/Symbolic all interconnected by the creative level. In ETC, the processes studied in connection to changes in expressions are assumed to

covariate with brain activity, as related to organizing function, creative transition, emergent function, and healing function. Each level of the ETC encompasses two polarities, whereby the emphasis on one polarity decreases the involvement of the other polarity. These polarities are hypothesised to relate to the left and right hemispheres of the brain. The stepwise three-tiered structure of the ETC incorporates concepts from cognitive psychology and art education, namely perception and imagery, visual information processing, graphic development, and different expressive styles. Based on Fuster's and Fuster's (2003) theory about areas of the brain involved in processing perceptual information, Lusebrink has hypothesised that the three levels of the ETC reflect three different areas of the brain in processing visual information (Lusebrink, Martinsone & Dzilna-Silova, 2013, p.75). Although with our emerging understanding of the functional networks of the brain, the ETC needs to be refined. For example, the recently identified default mode network, DMN, of brain function (Raichle, MacLeod, & Snyder, et al., 2001) describes a simultaneous activation of the parietal cortex, medial prefrontal cortex, temporal lobe, and posterior cingulate cortex. This occurs when the brain is at rest and is connected to inwardly oriented states, daydreaming, or hypnosis-like states (Deeley, Oakley, & Toone, et al., 2012; Demertzi, Soddu, & Faymonville, et al 2011; McGeown, Mazzoni, & Vannucci, et al., 2015). Such understanding points more to the value of a deepened understanding of how state specific global activation patterns of the brain, of for example a neuroception of safety, might correspond to certain pictorial signs, compared to more static descriptions of functions as activations of separate brain regions. Thus, correlating signs in clients' PAs to the brain's functional networks, the general arousal level and the phenomenological experience of the self may be more strategic phenomena to look for, and related to more theoretically up-dated constructs.

CHAPTER 2. RESEARCH QUESTIONS

Based on the above presented background, the following research questions were formulated and developed:

1. Can pictorial artefacts be assessed according to the concept neuroception (Porges, 2003, 2011), defined as a continuous, partially unaware assessment of whether situations are safe, worrying or life-threatening. Will different patterns of neuroception show up as meaningful units in pictorial artefacts?
2. If so, can these patterns form part of an assessment tool for pictorial artefacts?

Sub-questions:

3. How can results from such a newly developed assessment tool of pictorial artefacts be understood in relation to other measures, namely self-assessed overcome traumatization and other variables of existential health?
- 4) How can these understandings be theoretically conceptualized in relevant contemporary psychotherapy theory?

The development of the (SATPA) was conducted on a non-clinical population, using pictures conducted by the research participants of M. Wårja's study (Wårja, Bergmark, & Bonde, 2012). Thus, the earlier intended study of the therapists' written session notes are not applicable. Due to the interpretivist approach, the research questions unfolded and changed in relation to the research findings. However, the initial interest in understanding PAs and their assessment in relation to contemporary psychotherapy theory (theories) remains intact.

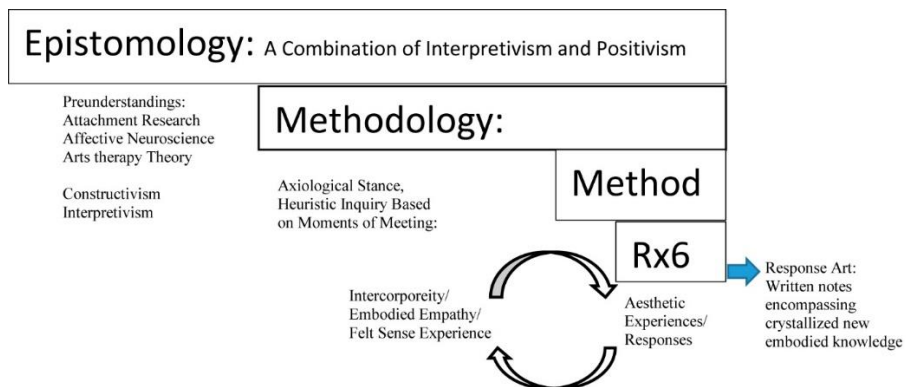
2.1. SUMMARY PROBLEM FORMULATION

After initial literature studies and conceptualisation of theoretical and methodological constructs, an aim of the thesis was to add clinically relevant tools for reflection and evaluation of PAs, with a focus on how such tools could add to the understanding of implicit change processes in the arts- and ASC-based psychotherapies. This undertaking was to test if the concept of neuroception was relevant in relation to assessed PAs, and if so define how a neuroception of safety, compared to one of fright/ambiguity, or terror/collapse would manifest itself in the studied artwork. The (SATPA) was subsequently validated.

2.2. EPISTEMOLOGICAL PERSPECTIVES

The previously discussed arts-based inquiry in research is reflected on in this section. Austin and Forinash (2005) discussed the use of imagery and metaphoric analysis, and considered it helpful for allowing researchers to bridge the unconscious with the conscious, to access new insights and deepen the understanding, including identifying research questions. This strength of ABR partly relies on its subjective first-person perspective. This has been problematized by McNiff “Since artistic expression is essentially heuristic, introspective, and deeply personal, there needs to be a complementary focus in art-based research on how the work can be of use to others and how it connects to practices in the discipline.” (McNiff, 2008, p. 34). The personal stance of the researcher was conceptualized in the following model:

Figure 5. The inquiry from epistemology to methodology and method (Gerge 2017, submitted).

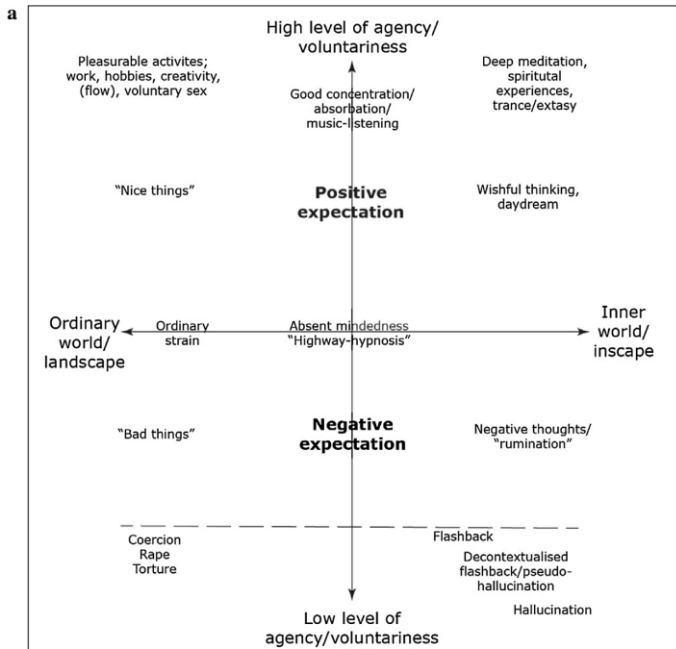


In line with Hiller’s (2016) and Wheeler’s (2016) definition of an interpretivist stance, the over-arching methodology was a heuristic inquiry where the methods were deductive content analyses; including arts-based inquiries (article I). ABR was also used as a primary analysis method (article III). The outcome of the appraisals conducted through the developed (SATPA) was evaluated through quantitative calculations. In addition, the problems with linking interpretivist and positivist research has been discussed (article VI), where it is highlighted that interpretivist results may be more difficult to repeat, thus quantitative validation of subjective appraisal processes may be problematic, due to trans-paradigmatic problems vis-à-vis an interpretivist position in relation to a positivistic stance. The inherent subjective endeavour of the appraisal of PAs urges definitions of validity and reliability that are adequate in such measurements. The epistemic trust-worthiness in the researcher’s choice of theory (neurophenomenology and constructivism), methodology (interpretivistic) and method (manifold, including arts-based inquiry, qualitative and

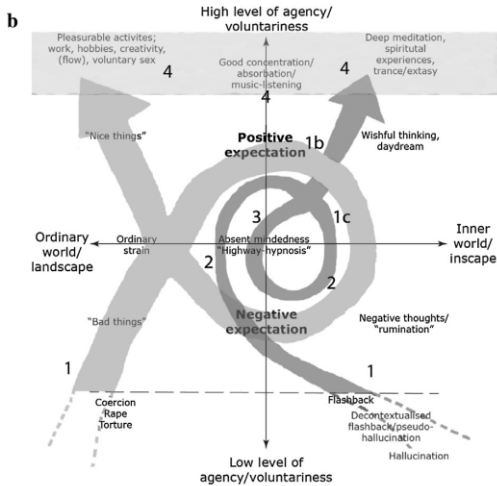
quantitative methods) needs to be reflected on. The embodied and mental interweaving of experience, and possible fluidity of perception offered by the ABR-approaches, was an important starting point in this thesis. Due to the calculating measures and preliminary validation of the developed assessment tool, the interpretivist “cake” was “glazed” with non-parametric and semi-parametric calculations and finally compared to other parametric measures. Thus, the researcher had the opportunity to develop skills in several contemporary research paradigms. The research may also be defined as opportunistic, since the researcher wanted the results to have impact in research communities. This may have resulted in a premature abandonment of the interpretivist stance, although the themes seemed matured. In contemporary research, what is important in an interpretivist position, may be devalued, and searching may focus on what is measurable in a (post)positivistic stance, instead of keeping in touch with the unmeasurable. As appraisal of PAs is an inherent subjective undertaking of an embodied mind (first-person perspective) meeting an artefact of another embodied mind (second-person perspective), human judgment will vary between observers, and the same individual may rate things differently (third-person perspective) depending upon situation and mood (Golafshani, 2003). The first-person perspective measurements were theorized to be more difficult to validate. Thus, quantitative validation of subjective appraisal processes may be problematic due to trans-paradigmatic problems (the interpretivist position vis-à-vis the positivistic stance). Further reflections on the epistemic nature of the researched data and methods need to be undertaken.

What is possible to think and do can be hypothesized to correspond to the level of agency and affective tone experienced, see figure 6a (Gerge & Pedersen, 2017; Gerge, 2018, in press).

Figure 6a. Experiences of the inner world in relation to life experiences. b. The importance of the therapeutic process’ duality; activating both innate resources and concrete behaviours before working through of trauma.



Consciousness in relation to agency (Gerge 2013)



Consciousness in relation to agency

1a. Initial treatment, stabilization

1b. Installation of hope, stabilization, restoring control and safety

1c. Phase 1-work. Stabilization, further resourcing, restoring control and safety

Phase 2-work. Working through, remembrance and mourning

Phase 3-work. Reconnection to life after trauma, after adequate working through/overcame traumatization – reconciling with the self

Both art and life have concrete qualities and aspects that are observable and possible to operationalize, but also contain aspects that need an interpretivist approach to be possible to interpret. The PA can show previously unrecognised aspects of a person's lifeworld. Memories and artefacts are tied to time, and artwork can be a concrete counterpart for memories, giving form to life experienced, the ongoing now and percepts of the intended future. Thus, art can generate both memories and enhance the experience of ongoing reality, and show the artist new possible relationships to the world. From such preunderstandings of the PA, it seems worthwhile to analyse clients' pictures, as statements of their ongoing phenomenological self, and its' layered appearances in bio-psycho-socio-existential dimensions. How methods from the interpretivist and positivist tradition can best add to clinicians' capabilities and reflect the images and life worlds of clients, with the PA as a proxy measure is still only partly researched. These methodologies offer tools and methods (incomplete and imperfect), to understand, and positively change, when necessary, the work of art - the personality (Janet, 1929) - built by one and each of us. Although, a form of replicability is important even using an interpretivist perspective. How to conceptualise and prove construct validity in neurophenomenological undertakings need further consideration (American Educational Research Association, 1999; Cook, Zendejas, & Hamstra et al., 2014; Frost, 2007; Golafshani, 2003) and has been discussed (Gerge, Gattino, Pedersen, 2017).

CHAPTER 3. METHOD AND DESIGN

SPECIFICS OF THIS PHD STUDY

The methods used consist of a deliberate mixing of methods and ways of thinking aligned with an interpretivist position (Hiller, 2016; Wheeler, 2016). This mechanism to address a specific issue or problem – also called 'bricolage' (Kvale 1997/2009; Skov, 2014) could be brought together in a neurophenomenological paradigm. Through the above-mentioned axiological stance an avenue to make sense of tacit knowledge was offered, where the role of the researcher as participator in the heuristic process was enhanced (first-person perspective), thus the choice of qualitative and arts-based methods (Gerge, Wärja, & Pedersen, 2017b; Leavy, 2015). Although, the differentiation of why and how the arts-based and qualitative/interpretivist inquiry was undertaken needs to be clarified. In ABR this means that, "methods, design, and results should be grounded in the purpose of inquiry" (Viega, 2016b, p. 8).

Study 1. PAs as proxy measures of subjective ongoing rehabilitation processes and life-worlds after treatment for gynaecological cancer before and after participating in a randomized trial with an arts-based intervention (Wärja, 2010, 2012, 2013, 2015) were assessed with qualitative and ABR methods. The paintings/drawings analysed were initially produced as responses/expressions of their life-worlds by the gynaecological cancer survivors and collected at baseline and post-test (and FU for the individual treatment arm) of the interventions under evaluation (Wärja, Bergmark, & Bonde, 2012). An arts-based method was developed (Gerge, Wärja, & Pedersen, 2017).

Study 2a. Analyses of PAs of clinicians as informants with the aim of developing an assessment tool of PAs. The outcome of the assessments was partly quantitatively analysed. The study aimed at developing an assessment tool for pictorial artefacts in order to understand the life worlds of informants/clients, in relation to their perceived appraisal of whether situations were considered safe, ambiguous or life-threatening. The study attempted to answer the following two questions:

How will the experience of safety show up in PAs? If and how can this be related to the patterns, colours, affects and metaphors used in artworks? From the answers of these questions the development of an assessment tool was considered possible (Gerge, 2017; Gerge, 2017, submitted; Gerge & Pedersen, 2017).

Study 2b. Validation of the assessment tool with non-clinical informants.

An internal validation of the newly developed (SATPA) was conducted by clinicians, including psychologists, psychotherapists and art therapists who evaluated pictures of

worrying and reassuring clinical situations according to the tool (Gerge, Gattino, Pedersen, 2017, submitted).

Study 2c. Pictures of worrying and reassuring clinical situations conducted by health professionals as informants, were gathered and analysed. The analyses were conducted on different subgroups of clinicians, artists and lay persons according to if they evaluated the pictures as reassuring or worrying (Gerge, Gattino, Pedersen, 2017, submitted).

Study 3. Differences in PAs in clinical populations were initially analysed through the tool. Pictures conducted at intake and at post-treatment by 28 of the 43 possible participants who depicted a human figure pre respectively post-treatment of arts-based psychotherapy interventions in rehabilitation medicine (Wärja, 2018, in press; $N_{\text{tot}} = 57$), were analysed. The outcome of the assessments was partly quantitatively analysed. This study validated the tool and inquired how it could add to an understanding of change capability and health processes of the studied research clients. Thus, answering the question whether pictorial artefacts conducted in relation to therapy in a clinically meaningful way could be assessed through the (SATPA). If so, the tool ought to add information concerning clients' perceived neuroception as a proxy measure of overcame trauma and retaken existential health (post-trauma clients) and/or heightened QoL (rehabilitation medicine), and ought to have good inter-evaluator reliability. Of interest was if information that might otherwise have been missed, particularly when verbal or written assessments were only used, showed up when analysing the PAs.

3.1. SITUATING THIS RESEARCH IN THE CLINICAL FIELD

As stated in Gerge, Gattino, and Pedersen (2017, submitted) and in Gerge, Wärja, Gattino, and Pedersen (2017, submitted), an offspring of this research might be a renewed interest in projective tests. As stated by Kaiser (1996), Neale and Rosal (1993), the importance of developing projective drawing techniques is to address the various problems of the populations treated by art therapists. If the appraisal of PAs is such a solid process of gaining information, as this dissertation and the articles suggest, then tools and tests previously validated should be more utilized, and further developed. Interestingly, Madigan, Goldberg & Moran's (2004) findings indicated that naïve observers successfully distinguished features of drawings created by children with histories of disorganized vs. organized attachment. In line with this Gerge, Gattino and Pedersen (2017, submitted) found no statistical differences between different categories of evaluators; art therapists, psychologists, health-care professionals and laypeople alike. According to these findings, pictures might be overlooked sources of information in health care and research of humanities. Although, we cannot know if the appraisals of neuroception will co-varyate with different attachment styles and coping capacities, and more research is required, this thesis strikes a cautiously optimistic note concerning the strength of PAs as arrays to

implicit regulation and preverbal processing. In clinical work PAs can be analysed either from a process or product perspective. According to Huss (2012) images can be described as consisting of three stages: process, product and interpretation, where each stage can be utilised in clinical work and for research purposes (p. 1453). Péntzes, van Hooren, & Dokter et al. (2016) proposed the importance of interaction and product in art therapy assessment concerning adult mental health. Huss (2012, 2013, 2015) further stated the use of the image as additional data or as a subject of a research focus on images as products, or images as the method or phenomenological trigger, thus focusing on the image as process.

3.2. DATA COLLECTION

Study 1. As described in Gerge, Wärja, & Pedersen (2017) the focus was to understand the developmental processes of women being treated for gynaecological cancer as revealed in their artwork before and after undertaking a psycho-social arts-based short-time psychotherapy intervention. Originally (Wärja, Bergmark, & Bonde, 2012, Wärja, 2018 in press) the research participants had undergone a therapeutic approach, called KMR (Brief-Music Journeys (Korta musikresor; Wärja, 2010) based on a modified version of The Bonny Method of Guided Imagery and Music (BMGIM; Grocke & Moe, 2015). The intervention involves listening to pre-selected short pieces of music of varying dynamic intensity (Wärja & Bonde, 2014), lasting between 3 to 5 minutes, followed by an art-making experience, and a reflective phase. The method was designed to evoke images and life-themes connected to cancer (Wärja, 2015). Previously Wärja (principal investigator of the intervention study) collected pictures and texts, where the participants' responses to their Body Images, BIs, were gathered at three times: baseline, post-test, and follow-up (FU) after 7 months. At FU only paintings from the participants in the individual treatment arm were gathered. The instruction provided each time was: "Paint a picture quite freely and spontaneously about the experience of your body today, after illness and after cancer treatments. How do you see your body? How does it feel? How do you experience your body?" After the painting was completed a similar instruction was given for writing a free and spontaneous text.

In the undertaking of this study (Gerge, Wärja, & Pedersen, 2017a), an arts-based inquiry was conducted, and an arts-based method was developed. As in ABR the data or the content, might be generated in this step instead of analysed or described (Leavy, 2015, p. 294). Here short responses were individually jotted down on a Post-it® note (7,5 cm x 7,5 cm) by Gerge and Wärja (Gerge, Wärja, & Pedersen, 2017). The statements were placed on the back of each painting. In the first step all pictorial artefacts from baseline were analysed through ABR (N=57) to be followed by artefacts collected at post-test (N=45), and concluded with the analysis of images from FU (N=15). At FU only pictures from the individual treatment arm was collected. During the next step, the paintings from baseline and post-test paintings were placed next to each other. Changes and differences were noted and gave room for a response.

The researchers were aware of the therapeutic intervention that had taken place between measurements. This was most likely the case for the research participants. The total amount of paintings/drawings analysed was 117 (Gerge, Wärja, & Pedersen, 2017).

Study 2a. 244 pictures were gathered from 122 experienced clinicians; psychologists, psychotherapists, councillors, and somatic health care professionals (Gerge, 2017). Informants were asked to make a drawing about the feelings evoked by a worrying or a reassuring meeting with a client/family. The respective instructions were given on the top of separate A4-pages, and the drawings were conducted beneath with a pen or pencil. The informants were also asked to name their drawings according to the question: “What title would you give your picture if it should hang on the wall of an art museum?” (Gerge, 2010, p. 224), see appendix D. The methodology used, was developed previously in supervision, to initiate discussion on the impact of the other in psychotherapeutic work, and to highlight the value of the safe state in self-care (Gerge, 2011ab).

As described in Gerge (2017), the pictures did not necessarily depict meetings with the same client/family, although they clearly represented two different states activated in the participant. Informants were free to allow the use of their drawings, by handing them over to the researcher after the experiential part of the lecture/supervision situation. The informants gave written informed consent. The informants consisted of approximately 80% women, which is representative sample of the genders of these health care professions in Sweden.

Gerge (2017) further invited a subgroup of the 122 informants, consisting of 25 experienced psychotherapists/psychologist, trained in hypnosis and/or EMDR, Eye Movement Desensitization and Reprocessing (Shapiro & Silk-Forrest, 1997; Shapiro & Maxfield, 2002), including one art therapy trained therapist, to partake in an additional individual mandala drawing. These informants were invited as participants since (albeit without formal screenings or psychometrics) they were considered sufficiently psychologically stable by the researcher to endure and thrive from a 25-minute-long resource-activating hypnotic induction developed by Jensen, Ganas and Sherlin et al. (2016). Written informed consent was given and the informants were free to allow or deny the use of their material (Gerge, 2017). The informants’ mandala pictures were drawn before the hypnotic induction, then photographed, and completed after a 25 minutes long resource oriented hypnotic experience, created using a modified and translated script from Jensen et al. (2016), see (Hartland, 1966; Jensen, Ganas & Sherlin et al., 2016; Frederick & McNeal, 1999). All informants were invited to change or elaborate aspects of their mandala drawing, immediately following the hypnotic experience. All informants chose to add changes.

The reason for the research-enhancing intervention of hypnotic induction was to ensure a high level of experienced safety within the informants and discover what

would be added to the drawings after their further resourcing experience, thus offering a possibility to share information from the first person-perspective. The hypnotic induction was built on continuous recourse activation; relaxation, deepened relaxation, ego strengthening and post-hypnotic suggestions for enhancing wellbeing and physiological, psychological and existential health (Hartland, 1966; Jensen, Gianas & Sherlin et al., 2016), see Gerge (2017). The induction was conducted in small groups or individually. Materials used for the drawings were a paper 29,7 x 29,7 cm with two circles marked, one in the middle with a diameter of 9,5 cm, and one bigger with a diameter of 25,0 cm, encircling the smaller one in the middle. Each informant had access to 36 oil crayons. After the hypnotic induction session and the mandala drawing was completed each informant answered three questions; (a) concerning the initial drawing experience, (b) the hypnotic experience, eg. being in trance, and, finally, (c) what they considered important to add to the picture. afterwards (Gerge, 2017)

Study 2b. 122 clinicians were asked to describe both a worrying and reassuring clinical meeting with a client/family using art drawings, see appendix D. Out of a total of 244 drawings, six were selected for further analysis, see appendix C. Four of the six drawings related to a worrying professional clinical meeting whereas two described a reassuring clinical meeting with a client/family, in accordance with the drawers of the pictures. As described in Gerge, Gattino, & Pedersen (2017, submitted), these six pictures were administered together with a screening formula where the title was given (N=11) or withheld (N=105) by their creators. Initially we aimed to have the same numbers of screened drawings with/without their titles. However, it became apparent during the initial setup that the addition of titles during screening of the six pictures was unnecessary since the picture itself provided all the information required. As such, the method of data collection was altered and focused on gathering screening formulas of pictures without their titles. The screening formulas of the six pictures were gathered during 2016-2017 in conjunction with lecturing or the supervision of clinicians in health care/psychiatry (Gerge, Gattino, Pedersen, 2017, submitted).

As described in Gerge, Gattino, and Pedersen (2017, submitted), in addition, the Swedish education programs of art therapists, including the MA-programme at Umeå University, were invited to screen the six pictures. The Swedish association of art therapy, SRBt were contacted, and they kindly invited the researcher to send out the request to screen the six selected pictures according to the developed assessment tool, to the members of the association. If they so desired to be included, the screening formula was mailed by post. The informants were free to allow or deny the use of their screening either via communication with the researcher in person, or by posting the responses in pre-stamped envelopes. A small amount of laypeople, N=13, were also invited to screen the six chosen drawings. This group consisted of acquaintances of the researcher. The majority of the selected group of laypeople had education to a University diploma level, in order to be comparable to health care clinicians (Gerge,

Gattino, Pedersen, 2017, submitted). The evaluators performed their screening anonymously, but were asked to disclose gender, occupation, if they held a university grade, if being a lay person/not licensed health care professional. If the evaluator was a psychologist, psychotherapist or psychiatrist she/he was asked to define theoretical orientation; whether, psychodynamic, integrative or cognitive behavioural. Finally, the presence/absence of specific education programmes in arts therapies were surveyed. The informants consisted of at least 79% women and 11% men. 10% of the informants did not answer the gender question. As reflected in Gerge, Gattino, and Pedersen (2017, submitted), whether this was a political statement, concerning the contemporary discussion on gender issues or a general omission was not further investigated. This uneven distribution of gender was equal in the different subgroups (Gerge, Gattino, & Pedersen, 2017, submitted). The screening of the informants was conducted individually according to the screening formula, namely the (SATPA), see study 2a and articles IV and V, section 4.4. and 4.5. where the eleven perspectives of the tool in relation to the evaluated pictures are presented.

Study 2c. Pictures (N = 48) of a worrying respectively reassuring clinical situation conducted by 24 health professionals as informants, including the titles of the pictures were gathered. As described in Gerge, Gattino, and Pedersen (2017, submitted), written informed consent was given. The 48 pictures were not previously analysed though gathered in the same way as the 244 pictures that initially were analysed when the tool was developed. The pictures were randomly put together in one pile of the researcher and the informants were individually asked to assort them into one “reassuring” and one “worrying” pile, for examples see appendix C. The informants could not compare the two pictures conducted by the same person at the same time, they did not have access to the titles of the pictures, nor information about which one of the situations the drawings depicted.

The 48 pictures were individually assessed by the informants according to if they evaluated the pictures as reassuring or worrying (Gerge, Gattino, & Pedersen, 2017, submitted). The informants consisted of 30 persons including 20 experienced clinicians, mostly psychologists and/or psychotherapists, five visual artists, and, finally, five laypeople. At least two of each category were asked to tell the researcher about their rationale for their choice, according to the pictures they evaluated wrongly, related to the intention of the one who had conducted the drawing, see article V5 (Gerge, Gattino, & Pedersen, 2017, submitted), and section 4.5.

Study 3. A part of the research participants' (N=28 out of 57) pictorial artefacts gathered in conjunction with a randomized controlled trial with parallel group design developed by Wärja, Bergmark and Bonde (2012) was one of the data sets, for examples see appendix C. The dataset consisted of the paintings conducted at baseline and post-test (Gerge, Wärja, Gattino, & Pedersen, 2017, submitted), where two evaluators rated the pictures individually.

3.2.1. DATA ANALYSIS

As written above, the analysis in study 1 was a data generating process where we, A. Gerge and M. Wärja focused on what we perceived as the change process that had taken place between the images, which was hypothesized to be an effect of the intervention. Under the art-based inquiry we found a method to use in the generative process – the Rx6-method (Gerge, Wärja, & Pedersen, 2017a). The responding process continued until all sequences of pictorial artefacts had been worked through, N=117. The brief written statements, which we produced as response art, can be described as essences of immediate, spontaneous, and embodied words where a first-person perspective was used to grasp a second-person perspective. The ABR process involved dialoguing with the image and inviting the possibility of surprise and emotional resonance (Gerge, Wärja, & Pedersen, 2017ab).

3.2.1.1 Development of a method of inquiry

In the arts-based inquiry of study 1 AG and MW decided to write short aesthetic responses to the artworks conducted as an avenue to conceptualize, deepen, and expand the tacit understanding of the gathered data set (Gerge, Wärja, & Pedersen, 2017a). A rationale for this endeavour is given in Gerge, Wärja, and Pedersen (2017b). The procedure was performed in the structured manner of the Rx6-method, a method we structured in line with the heuristic tradition (Moustakas, 1990, 1994), in order to come close to the phenomenological experience of the research clients through the first-person perspective. The arts-based inquiry was part of a larger overarching qualitative research process. In applying the Rx6-method we followed six steps representing a fine-tuning, layering process that can be implemented in relation to a research topic (Gerge, Wärja, & Pedersen, 2017a); steps of the Rx6-method of heuristic inquiry:

Step 1: Relate to the drawing/painting, as if the viewer “were” the produced image (i.e. change role with the image).

Step 2: Resonate an immediate embodied felt sense. The embodied felt sense is defined in line with the description by Gendlin (1978) as a bodily sensed knowledge, which he called a “felt sense.”

Step 3: Respond from that embodied experience by writing a short text-note (aesthetic response).

Step 4: Reflect together and individually to gain a deepened understanding of the researched phenomena, discoveries, and findings.

Step 5: Results are acknowledged as expanded and deepened perspectives. Further informed ways to present and integrate these discoveries are searched for.

Step 6: React with this new knowledge. On a general level the Rx6-method, and other ABR approaches can lead to a more informed lived experience related the inquired phenomena. This can unleash new ways to encompass reality and – to react.

Study 2a. Drawings of stressful (N=122) or fulfilling/rewarding clinical situations (N=122) conducted by the 122 informants were analysed (Gerge, 2017). Each picture was inductively analysed with inspiration of qualitative content analysis (Graneheim & Lundman, 2004), mainly with the purpose of describing manifest signs in the pictures. These signs were seen as messages and their latent meanings were interpreted in line with qualitative content analysis (Thyme, Wiberg, & Lundman et al., 2013). The aim was to answer the question, how will the experience of safety show up in Pas (third-person perspective)? Though, the analysis could also be described as a deductive top-down form of analysis (Braun & Clarke, 2006) based in clinical experience and theoretical preconceptions, since the aim also was to find patterns that either falsified or verified the second of the original questions: If and how can the experience of safety be related to patterns, colours, affects and metaphors used in artworks (third-person perspective)?

As described in Gerge (2017), in line with Berg's description (2001) of latent analysis, two kinds of content analysis, namely manifest and latent can be hypothesized. Manifest content analysis looks for the presence/absence of phenomena in a phenomenological analysis. The latent content analysis looks for what can be considered as concealed in the observed phenomena and offers a hermeneutic interpretation. Thus, the preconceptions searched for in the material can be considered as part of a latent content analysis, which built the assessment instrument (Gerge, 2017), see article III and IV, section 4.3. and 4.4.

The steps of analysis were further deepened by arts-based methodology. The two analyses forms (deductive-inductive) described above were further amplified by an arts-based inquiry in the form of the Rx6-method (Gerge, Wärja, & Pedersen 2017ab). This inquiry was undertaken from a both qualitative (Kvale, 1997/2009; Pope, Mays, & Popay, 2007) and axiological (Viega, 2016b) stance. The researcher used brief written statements in the form of essences of immediate, spontaneous, and embodied words as response art, thus giving access to symbolic and latent information, gathered through the aesthetic response derived from the felt sense experience of the researcher. This latter inquiry motivates labelling the total analysis procedure used in this study as latent, theoretical or deductive, content analysis with elements of an arts-based inquiry (Gerge, 2017, submitted). In this procedure both information from investigating data and from a data generating process emerged and was processed into a concentration of meaning derived from identified codes and categories into themes.

(Kvale, 1997/2009). These themes were finally labelled perspectives and were related to the pre-decided patterns of stipulated types of neuroception; (a) A = safety, (b) B = worry, ambivalence, and (c) C = overwhelmed, collapsed (Gerge, 2017). The drawings of the informants (N=269) were initially coded. From these codes themes were identified based on what was observable on a manifest level and formed into meaning units due to what was considered answering the question, ‘‘what is this all about?’’ The aim was to identify differences and similarities in the content on code and theme level, thus finding sub-themes answering the questions; which patterns, states, affects and metaphors are possible to recognise in the pictures of the informants?, (Gerge, 2017). From this procedure, the meaning units were defined as the nine described perspectives of the tool, which were related to different patterns of neuroception (Gerge, 2017). These perspectives were completed with two additional perspectives through an arts-based inquiry (Gerge, 2017, submitted).

As described in Gerge (2017), differences in themes between the first drawing (worrying situation), and second drawing (reassuring situation) in quality and content were analysed. Compilations of the findings from these analyses built the internal validation. As part of the validation process an inquiry of the titles of the drawings in relation to the arts-based elements of the study was undertaken (Gerge, 2017, submitted). The titles of the informant’s drawings (N=244) were coded and triangulated against aesthetic responses conducted by the researcher in line with arts-based research, ABR (Gerge, 2017, submitted; Gerge, W rja, & Pedersen, 2017ab, Leavy, 2015). The aesthetic responses to the drawings consisted of giving written notes encompassing crystallized new embodied knowledge, due to what was felt in the researcher (first-person perspective). As stated in (Gerge, 2017, submitted; Gerge, W rja, & Pedersen, 2017b), the poetic statements were created as aesthetic responses, in line with the primary signification of the word poetry (poiesis) meaning ‘‘to create’’. Such an endeavour can be defined as axiological (Hart, 1971; Rescher, 2004; Vieg , 2016b), and belongs to an arts-based research approach in the interpretivist paradigm. These brief written statements were used as response art and represented essences of immediate, spontaneous, and embodied words. The aesthetic responses were initially conducted without having access to the titles given by the informants. Later the words encapsulating each drawing, and what the researcher felt was missing in the drawing, were triangulated with the title given to the picture by the informant (Gerge, 2017, submitted).

3.2.1.2 The Arts-based Inquiry of the Drawings and Mandalas

The mandala-drawings of the 25 informants were analysed in relation to content and patterns of change (Gerge, 2017, submitted). In line with Chilton, Gerber, & Council, et al. (2015), the researcher, created response art, a work of art aiming to encompass the categories found in the pictures of the informants, and the aesthetic responses already given to the above mentioned inquired sample of 109 drawings. The 109 drawings consisted of 42 pictures of a worrying situation + 42 pictures of a reassuring

situation + 25 mandala drawings, which were changed after a 25 minutes long resource-activating hypnotic induction. These were further analysed, thus trying to answer the question; what is this really about? In the inquiry an ABR was undertaken, using the same procedure of brief written statements as response art as in study 1. These aesthetic responses towards that which was changed in the drawings encompassed and crystallized new embodied knowledge, due to what was felt in the researcher (first-person perspective). No analyses of that what was missing was conducted, as this was considered not relevant in the mandala-drawings after the hypnotic induction.

Study 2b. Nine out of eleven categories in the (SATPA) were analysed due to the answers collected from 116 informants (Gerge, Gattino, & Pedersen, 2017, submitted), see article V, section 4.5.

Study 2c. As described in Gerge, Gattino, and Pedersen (2017, submitted), in addition to those already collected, 48 new pictures from 24 additional health professionals were gathered following their written informed consent. Their pictures of worrying and reassuring clinical situations were analysed by 30 additional informants consisting of 20 experienced psychologists, psychotherapists and music therapists including; seven clinicians with CBT orientation, nine with psychodynamic orientation, five creative arts therapists, including one art therapist, three expressive art therapists and two expressive and receptive music therapy/GIM, Guided Imagery and Music (Bonny & Summer, 2002) therapists, five visual artists, and five lay persons (Gerge, Gattino, & Pedersen, 2017, submitted).

Study 3. Clinical validation. Part of the research participants' ($n = 28$ out of 43 possible, $N_{\text{tot}} = 57$) pictorial artefacts ($N=65$), gathered by M. Wärja in conjunction with a randomized controlled trial with parallel group design developed by Wärja, Bergmark and Bonde (2012) were analysed by two evaluators. The dataset consisted of their paintings conducted at baseline, after the intervention, and at FU (Gerge, Wärja, Gattino, & Pedersen, 2017, submitted).

3.3. ETHICAL ASPECTS

The dissertation is partly built on data gathered in the intervention-study conducted by Bergmark & Wärja and collaborates, approved by Ethical Committee, Karolinska Institute, Stockholm, Sweden on 2012-01-19 (ref. 2012/5:1). The ethical approval is also valid for this study concerning gathered data from the research clients. This has been discussed with the Ethical Committee, Karolinska Institute, Stockholm, Sweden. Their standpoint was that the most ethical practice in research is to use gathered material and conduct research, even if, in this case, the researcher was not the researcher doing the application. If a study generates more material than can be used in for example one dissertation, research ought to be conducted, if valid competence

can be found in co-researchers. For the additional contract for this research, see appendix A.

The informants who conducted drawings of a worrying respectively reassuring clinical situation signed informed consent (Gerge, 2017), including the possibility that their drawings anonymized may be published in research journals. Though, as these informants are not clients, instead representing clinicians; psychologists, psychotherapists and counsellors, who are well trained in processing psychological material, no specific ethical application was considered applicable to this part of the study. The same was considered with respect to the informants who evaluated the six chosen pictures of the gathered drawings of a worrying respectively reassuring clinical situation, according to the (SATPA) (Gerge, Gattino, & Pedersen, 2017, submitted), and those who rated if a picture depicted a worrying respectively a reassuring clinical situation (Gerge, Gattino, & Pedersen, 2017, submitted). However, informed consent was obtained, for examples, see appendix B.

3.4. METHODOLOGICAL ASPECTS OF DEVELOPING THE SAFETY ASSESSMENT TOOL OF PICTORIAL ARTEFACTS – (SATPA)

As described in Gerge (2017), by building upon existing methodologies (Appleton, 2001; Lande, Lande, & Tarpley et al., 2010) and an understanding of semiotic signs in PAs (Skårus, 2009, 2014) and clinical experiences (Gantt & Tinnin, 2007; Gerge, 2010; Spring, 2004), in combination with the neurophenomenological stance and interpretivist methodology, the development of the safety assessment tool of pictorial artefacts (SATPA) to facilitate the decoding of PAs was conducted. This included the arts-based inquiry as a method to graspe the first-person-perspective, and was influenced by an understanding of the need in identifying suitable resources in research undertaking (Betts, 2012; Brown & Fromm, 1986; Eriksson, Rossi, & Rossi, 1976; Gerge, 2010, Gerge, 2018, in press; Ruyschart, 2014; Spiegel, Malchiodi, & Backos et al., 2006, Wilkinson & Chilton, 2013).

Nine important perspectives or themes were initially found and related to activation patterns of the central nervous system in line with the concept neuroception (Porges, 2003a,b, 2007), categorized as; (a) A - safety, (b) B – worry, or (c) C – overwhelmed, collapsed (Gerge, 2017).

The nine perspectives of the assessment tool were, according to Gerge (2017): 1. Depicted description of the situation – without interpretations of meaning, 2. If I was this drawing, I would say, my message is ..., 3a. In this picture there is absence of ..., what needs to be added? (If a row of pictures from the same person is analysed, an elaboration on perspective 3 can be added; 3b. What has been added/changed?), 4. How is this picture made?, for example quality of line, patterns forms, materials, etc., 5. Certain colours?, 6. Which states and body positions?, 7. Which affects/emotions?, 8. Which symbols (including both primary and secondary metaphors?, and finally 9.

Secondary metaphors/symbols for the self (trees, houses, persons, animals, flowers, hearts). Further on, through an arts-based inquiry, two additional perspectives were found, the concept of centeredness, and the theme of existentialism (Gerge, 2017 submitted), see Table 2.

Table 1 Pictorial signs to look for in pictorial artefacts, vis-à-vis the neuroception of safety, fight-flight and immobility, and related states, with examples given. Adapted from Gerge (2017, 2017 submitted).			
What to search for:	Signs of a neuroception of safety	Signs of a neuroception of ambivalence, worry, fight-flight responses	Signs of a neuroception of life-threats and submission. Experiences of severe threat, being overwhelmed, prone to unconsciousness, collapsed
1. Depicted description of the situation – describe what you see (no interpretations of meaning):	Reassuring picture, e.g. a picnic, a conversation, a walk in nature, a garden, etc.	Uncomfortable picture or at least slightly threatening, for example a quarrel, depicted deficiencies of resources, etc.	Scary, overwhelming situations, for example rape, assassination, incompletely-depicted situations, people being empty or powerless, etc.
2. If I was this drawing, I would say, my message is ...	Even more yellow energy in the center of the good world. “Hope, clarity, compassion”	“Have to not be drawn with, have to hold back” “I’m a sad lion” “I’m angry”	“I can’t stand this” “Flight from feelings” “Chaos, destruction” “This is not me”
3. In this picture there is absence of ..., what needs to be added? (answer from your felt sense level)	(Seldom relevant)	“Calmness”, “support”, “safety”	“Hope”, “life”
4. How is this picture made? For example, quality of line, patterns, forms, materials etc. Preferably several pictures of the same person, where change-processes can be related to changed patterns.	Soft lines, colored part of the picture expands, more colors and symbols added to the center, be it a mandala, a person or a landscape, full, cohesive, clear borders, soft, rich.	Agitated, tense lines, zig zags, dots	Estranged, agitated, tense lines, zig zags, dots, collapsed, unfinished pictures, never started drawings, “there is nothing”
5. How is this picture balanced? What is in the center?	Balanced, stable and/or dynamically moving, colors and symbols added to the center, often stable ground.	Imbalanced and/or static	Emptiness in the center, broken, damaged, crushed or shattered parts

6. Certain colors?	Light, luminous, joyous and/or calm colors, yellow, white, orange, blue, green, turquoise, warm red, warm brown – “earth”	Black, red, orange flames, red/purple	Grey, black, blood red, red/purple, “dirty” yellow, “dirty” brown
7. Which states and body positions?	Act of triumph, standing stable, outreached arms, rest, peace, tranquillity, play, dance	Bent, burdened, vigilant, tense, or in attach-mode.	Bent/collapsed, tense, in attach-mode, body-positions might be mixed and/or incongruent in the same picture/person in the picture
8. Which affects/emotions?	Joy, curiosity	Sad, angry, worried, guilt-ridden, eyes crying/sad, tears, angry mouths, angry eyes, shown teeth	Shame, disgust, sadness, guilt, franticness, worry, absence of affects and emotions - “shut down”
9. Which symbols (including both primary and secondary metaphors)? Primary metaphor, concrete, e.g. A lump in the abdomen, weight across the shoulders. Secondary metaphors are more symbolic, e.g. strong as a bear, sad as a weeping willow.	Horizon – having a good outlook, ease, suns, flowers, water, small waves, greenery, nice landscapes to rest, explore or play in, in solitude or together with others Vehicles and devices giving directions and energy for “walking the path”, boats, horses, walking trails, arrows pointing upwards/upright	Lump in the stomach/solar plexus, encapsulated, heaviness, loaded, burdened, “the abyss” Arrows, lightning, thorns, rain/clouds/darkness	Scratches and wounds, dead, death, emptiness, “the void”, devastated, massacred, tattered, discontinued, flow out. Arrows, lightning, thorns, rain/clouds/darkness attacking. Being stuck.
10. Secondary metaphors/ symbols for the self (trees, houses, people, animals, flowers, hearts)	Prosperous trees, safe houses, safe persons, safe animals, blossoming flowers, happy and safe hearts	Trees, flowers and hearts under attack (in storms, broken, etc.). Person/s turned away, frightened or frightening. Cages, prisons, forts, scary houses	Fragmented or distorted trees, flowers, persons and hearts even more under attack (in storms, broken, massacred, etc.) Cages, prisons, forts, scary houses
11. Existential themes:	Compassion, self-compassion, acceptance, manageability, meaning, sense of coherence. “Providence sees me and I wish others to have welfare, peace and security”, reconciliation	Fear of suffering, doubt and uncertainty, hesitation, “dilemmas”, some guilt.	Desolated, devastated, rejected – out-cast, not worthy, punished/will be punished, guilt-ridden

By condensation and abstraction of aspects of the pictures (codes brought into themes building meaning units as essences of meaning) nine perspectives on what to look for in pictures, when attempting to understand them in relation to the concept neuroception became manifest (Gerge, 2017). The themes of the 122 informants' when depicting a worrying situation with a client/family, were very different compared to their drawings of a reassuring situation. As described in Gerge (2017), metaphors as the imprisoned heart, the crying eye, the whirl of worry (in the stomach), suns and hearts under attack, broken trees, heavy rains, abstracts entanglements, and dizzy, confused and/or collapsed gestalts represented the worrying situation. Also, darkness, dark clouds, nightly forests, obscure and/or depressed parts of the drawings were frequent. These pictorial elements of the worrying pictures were considered as clear, albeit implicit, communication indicating dysregulation and being low or beneath the window of tolerance, WoT (Siegel, 1999) (Gerge, 2017). Arrows, lightning, storms, visible teeth, agitated gestalts and depicted fright, seem to correspond to states high up or above the WoT (Gerge, 2017).

When depicting how the memory of a reassuring client meeting made them feel, almost half of the 122 informants, (n=50), draw the second drawing with softer lines, compared with the picture of a worrying meeting (Gerge, 2017). The informants' pictures of the reassuring situation depicted themes representing cognitive and visual clarity, expansion of the self, including the "act of triumph", joy in general, and in interpersonal meetings. Gerge (2017) found symbols such as air-balloons, faith, hope and love, for example children carrying flowers, the light in the tunnel, hearts that were held, (the therapist's heart holding the heart of the client, the heart of the drawer held by an expanding heart, cotton around the heart, etc.) abundantly represented. Also motifs as openness and light, free horizons, mountains (interpreted as correlations to cognitive, visual and existential clarity), healing tears/rain and arrows pointing forwards/upwards towards life, birds, butterflies, rainbow and goose-bumps were commonplace in the reassuring pictures. These signs and symbols were conceptualized in line with flow experiences and positive psychology (Gerge, 2017), see (Cameron & Fredrickson, 2015; Kok, Coffey, & Cohn et al., 2013; Maslow, 1962/1968; Seligman & Csikszentmihalyi, 2000, Wilkinson & Chilton, 2013) and in line with a neuroception of safety (Porges, 2011), though they do not constitute precise or crystallized knowledge (Gerge, 2017). Although, in the tool the presence/absence of specified pictorial signs were related to the neuroception (Porges, 2003a,b, 2007, 2011) of safety vis-à-vis threat. After plain observation, as perspective 1 (third-person perspective), a dynamically oriented pictorial inter-pretation (first- and second-person perspectives) (Buk, 2009, Curtis, 2011) is recommended, as in perspectives 2, and 3, (3a and 3b) and then ultimately complemented with the perspectives 4–11 (third-person perspective).

The assessment of PAs ought to be complemented with adequate and validated diagnostic tools, when needed. Thus, building on a conceptualization of pictorial artefacts as metaphors and communication from the implicit domain, both in relation

to traumatization overcome and experiences of ease in sessions (Gerge & Pedersen, 2017), where the (SATPA) focussed on states, not traits.

The undertaken neurophenomenology-informed investigation, which was built upon from literature studies (Gerge & Pedersen, 2017), quantified qualitative studies (Gerge, 2017) and an arts-based inquiry (Gerge, 2017, submitted), indicates that the tool can provide valuable information on activation levels, in line with the concept of neuroception. The tool was further validated by quantitative measures (Gerge, Gattino, & Pedersen, 2017, submitted).

3.4.1. DESCRIPTION OF THE SAFETY ASSESSMENT TOOL OF PICTORIAL ARTEFACTS, (SATPA)

The three first perspectives of the SATPA (Gerge, 2017; Gerge, 2017, submitted; Gerge, Gattino, & Pedersen, 2017, submitted) give the evaluator the possibility to go in relation with the picture (first-person perspective to enhance second-person perspective), to find new understanding and give the evaluator's own response to the perspective asked with a word or short sentence (first-person perspective). Perspectives four to 11 hold the third-person perspective. The first perspective asks for a description of the situation – without interpretations of meaning. This is important since we often see only what our preconceptions allow us to see. If we keep track on our bias and interpretations, a new understanding of the life-world of the artist, namely the person who has conducted the picture can emerge.

The second perspective invites the viewer to embody the artwork in line with an arts-based inquiry and let oneself become touched in the meeting with the PA/artwork, thus allowing new knowledge to emerge in a first-person perspective. This perspective holds a subjective arts-based quality. Gerge (2017) referenced Curtis (2011) who stated that therapists would benefit from moving beyond conceptualizing meaning-making as just decoding diagnostic material or solely relying on client explanations, echoing what Acosta (2001) called “dynamically oriented pictorial interpretation” (p. 95) which involves “the observer’s whole thinking, feeling, and intuitive self in making meaning from imagery” (Curtis, 2011, p. 5) and parallels arts-based research (Leavy, 2008, 2015). As stated in Gerge (2017), such an approach has similarities with Arnheim (1954/1974, 1966, 1969/1997), who pointed out the value of experiencing art, putting equal value on the role of the observer and the art, thus approaching the art as a subject or a story teller (first-person perspective to grasp the life-world and the phenomenology of the other person (second-person perspective). As such, formal elements in pictures may be viewed as semiotic signs and communication, thus requiring someone to listen. This fits neatly with a contemporary discourse perspective (Gerge, 2017; Gerge & Pedersen, 2017; Hogan, 2016; Skåræus, 2009).

Perspective 3. - looking for what is not there (Skåræus, 2009; Gerge, 2017) can give important information to the viewer/evaluator, concerning un-lived potential, including conscious and/or unconscious conflicts of the person who has conducted the artwork. This perspective also requires the observer to go in relation with the picture and allow the answer to come from her/his own inscape (first-person perspective to graspe the life-world and the phenomenology of the other person (second-person perspective)).

Perspective 4. includes looking for signs and patterns describing how the picture is done, in line with the art therapy tradition (Appleton, 2001; Betts, 2006; Gilroy et al., 2012). The phenomenology of stress, worry and other negative affects/affect-equivalents (Nathanson, 1992, 2009), can for example show up as `angry` lines, dots, arrows and lightings (Gerge, 2017), and according to Spring (2004) other wedge-forms. Here the theme states what a picture talks about, where what is said about the theme is called a rheme, according to semiotics (Atkin, 2006; Skåræus, 2014, Švantner, 2014). Thus, the importance of the perspectives 4. to 8. in the tool, which may give information about implicit levels of processing through the third-person perspective.

Perspectives 9. and 10. focus on distinguishing signs of safety and retaken agency vis-à-vis signs of worry or terror/collapse through, changes in themes and in metaphors (Lakoff & Johnson, 1980/2003, 1999). As the metaphors are numerous (McGuigan, 2007), it would be a futile task to check and find correlates for all present in each picture (Gerge, 2017). Although in pictorial art several rhetorical devices/figures may be referred to as rhymes, and may be of special interest. If we recall Daniel Stern (1985) and the experiences of the infant – we begin to recognize and make sense of the world by rhythms, patterns, presence/absence, or vitality-affects (Stern, 1985, 2004, 2010) of hardness, softness, colour, texture etc., that are our building-blocks of perception – and thus understanding and self-understanding (Gerge, 2017; Lakoff & Johnson, 1999). No mind can exist without being embodied (Noë, 2004, 2009). Our (embodied) actions as prerequisites for perceptions and from such experiences, primary metaphors are built upon and later elaborated and interpreted through abstractions and language.

Perspective 10. addresses what metaphors/symbols are used as representations of the self, and how these can be related to the experience of A - safety, B - ambiguity/worry or C - plain terror/submission (Gerge, 2017). The same levels of complexity, as described in relation to perspective 9, are valid for perspective 10. The tool described here allows a way to structure the perceived metaphors and symbols used in artwork related to arousal patterns and hypothesized levels of safety.

Finally, as presented in Gerge (2017) in perspective 11. the existential theme is inquired through the registered presence of; (a) depicted compassion, self-compassion, acceptance, manageability, and meaningfulness (category A, a

neuroception of safety), (b) fear of suffering, doubt, uncertainty, hesitation, or guilt (category B, a neuroception of ambivalence, worry and fight-flight-responses), or (c) being desolated, devastated, rejected, punished or guilt-ridden (category C, a neuroception of severe threat, being overwhelmed, prone to unconsciousness, collapsed).

Arousal levels conceptualised as states within the WoT (Siegel, 1999) ought to covariate with a neuroception of safety (Porges, 2003a,b, 2007) and can be labelled as category A in the tool. Signs in category A co-variate with the four resource-oriented goals of art therapy in the post-trauma gradient (Spiegel, Malchiodi, & Backos et al., 2006), which are, lowered arousal, heightened positive affects, self-efficacy, and self-esteem - phenomenological experiences that uphold the states of safety, namely the on-going beat of a physiology in rest or in joyful exploration.

The pictures, which together with literature studies and the researcher's clinical experience were condensed into the eleven perspectives of the (SATPA), were mainly conducted by Swedish clinicians (Gerge, 2017). The evaluations of the sample of six pictures was initially conducted by clinicians and laypeople, where most were from northern Europe (Gerge, Gattino, Pedersen, 2017, submitted).

CHAPTER 4. SUMMARY OF ARTICLES INCLUDED IN THIS THESIS

From the literature review and the studies of the thesis a theory driven model was proposed (Gerge & Pedersen, 2017); including acknowledging that understanding and interpreting pictorial imagery is highly subjective (McNiff, 1998). The subjectivity was considered a strength – not a weakness – especially as a main interest was measurement in relation to clinical work. The following articles constitute the gathered research:

Gerge, A. (2018, in press). Revisiting the Safe Place — Method and Regulatory Aspects in Psychotherapy when Easing Allostatic Overload in Traumatized Patients *International journal of experimental and clinical hypnosis*.

Gerge, A., & Pedersen, I. N. (2017). Analyzing Pictorial Artifacts from Psychotherapy and Art Therapy when Overcoming Stress and Trauma. *The Arts in Psychotherapy*, 54, 56-68. doi: 10.1016/j.aip.2017.02.001

Gerge, A. (2017). What Does Safety Look like? Implications for a Preliminary Resource and Regulation-focused Art Therapy Assessment Tool. *The Arts in Psychotherapy*, 54, 105-121. doi: 10.1016/j.aip.2017.04.003

Gerge, A. (2017, submitted). Answering from the Centre – Arts-based Research for Knowing More. *International Journal of Applied Positive Psychology*.

Gerge, A., Gattino, G. & Pedersen, I. (2017, submitted). What do we See when Looking at a Picture? – Preliminary Evidence of Validity in a Recently-Developed Safety Assessment Tool of Pictorial Artefacts, (SATPA). *The Arts in Psychotherapy*.

Gerge, A., Wärja, M., Gattino, G. & Pedersen, I. (2017, submitted). The Body in the Mind – the Appearance of the Phenomenological Self Assessed through Pictures Before and After an Arts-based Psychotherapy Intervention for Gynaecological Cancer Survivors. *The Arts in Psychotherapy*.

Gerge, A., Wärja, M., & Pedersen, I.N. (2017a). Using Aesthetic Response A poetic Inquiry to Expand Knowing, Part I: The Rx6-Method. *Voices: A World Forum for Music Therapy*, 17(1), <http://dx.doi.org/10.15845/voices.v17i1.890>.

Gerge, A., Wärja, M., & Pedersen, I.N. (2017b). Using Aesthetic Response, a Poetic Inquiry to Expand Knowing. Part II: Some Theoretical Perspectives on Arts-based Research. *Voices: A World Forum for Music Therapy*, 17(1). doi: 10.15845/voices.v17i1.913

4.1. ARTICLE I REVISITING THE SAFE PLACE

Revisiting the Safe Place — Method and Regulatory Aspects in Psychotherapy when Easing Allostatic Overload in Traumatized Patients. Safe place-inductions are considered important altered states of consciousness, ASC, to be (re)installed in trauma-informed psychotherapy. Co-regulation aiming at changed implicit relational knowing and increased integration and coherence through relational work, and hypnotic techniques, is conceptualized as crucial, as dysregulated clients' abilities to self-soothe and regulate have become seriously hampered. Thus, resource-oriented metaphors as inner strength imagery is advocated. Also, methods as creative arts therapy interventions and neurofeedback will induce ASCs, as most methods used with complex traumatized clients, due to their high hypnotisability (Spiegel & Maldonado, 1998). When positive or soothing imagery, or relationally held suggestions for changed focus of attention, are added to both psychodynamic psychotherapy and CBT, a hetero-hypnosis will be induced - a prerequisite for phase-specific trauma-therapy aiming at changed inner schemas and scripts.

Further development of protocols and assessment tools focused on resourcing and inner changes is asked for, and it is stated that many therapists' practices would benefit from adding a somewhat greater awareness of the arousal levels of the real, lived body of their clients, their inner scapes, including the not yet lived future as a resource AND the ongoing, lived therapeutic relation in their methods.

4.2. ARTICLE II ANALYSING PICTORIAL ARTEFACTS FROM PSYCHOTHERAPY AND ART THERAPY

Analysing Pictorial Artefacts from Psychotherapy and Art Therapy when Overcoming Stress and Trauma. Art therapy in the post trauma condition is summarized and the state of the art in therapy and assessment of artworks from therapies focused on overcoming trauma and stress are presented. What we as clinicians ought to look for in pictorial artefacts when searching for overcome trauma and stress is theorized and preliminary described. The value of pictorial artefacts, made by clients in psychosocial interventions, as valid "windows" of implicit change-processes is discussed.

The usefulness of a multi-dimensional tool for analyses of pictorial artefacts, utilized in therapy, is investigated and the essential components are explored. This is achieved by examining the need for assessment tools from an initial broad perspective and concluding with a preliminary understanding of what should be analysed, particularly when overcoming traumatization. When analysing artwork conducted in therapy, theories of interconnectedness, stress and trauma, including neuroception, and re-regulation-processes are considered important building-blocks of a trauma and change

informed assessment tool. Such instrument, partly built on already existing measures, might offer sufficiently solid tools for evaluating and further understanding implicit change-processes in relation to arousal levels.

4.3. ARTICLE III WHAT DOES SAFETY LOOK LIKE?

What Does Safety Look Like? – Implications for a Preliminary Resource and Regulation Focused Art Therapy Assessment Tool. The identification of defining characteristics in PAs based upon a pre-understanding of traumatization, dissociation and recovery, metaphorical processing, and pictorial semiotics is discussed. Signs of reduced arousal, increased positive affect and states, self-efficacy, and self-esteem, are considered important parameters when assessing PAs conducted in therapy. These signs, related to overcoming traumatization and a re-established experience of safety, as well as the concept of neuroception, should be easily identifiable via the use of appropriately designed assessment tools. This hypothesis was tested on a series of non-clinical material consisting of drawings produced by 122 experienced clinicians. Through the identification of defining concepts in artwork a preliminary assessment tool was developed with the aims of guiding clinicians in identifying perceptions of fright in relation to safety and in facilitating the nurturing of safe states in clients when conducting PAs. This tool consists of plain observation and subjective appraisal combined with the identification of seven predefined perspectives; how is the picture made, colour utilization, depiction of states and body positions, which affects/emotions, symbols and secondary metaphors/symbols for the self can be recognised in relation to a neuroception of threat with respect to safety.

How safety looks can and ought to be very personal – both for clients and therapists, though some general principles have been sketched. Searching for a neuroception of safety in PAs can be of value and may be conducted with the guidance of the here presented assessment tool.

4.4. ARTICLE IV ANSWERING FROM THE CENTRE

Answering from the Centre – Arts-based Research for Knowing More. An arts-based inquiry through poetic transcriptions and pictorial response art was conducted to express, explore, and expand tacit knowledge in relation to pictorial artefacts. These were reflected on in the development of a preliminary assessment tool. By allowing the self to answer from implicit levels, as an arts-based endeavour, the following two categories were identified, the concept of centeredness, and a theme of existentialism. Strain in healthcare professionals, related to agency was also highlighted. The concept of subjectively experienced awe and of being in a receptive mode of consciousness by activating positive emotions was preliminary understood as an important parameter of the arts-based inquiry. The understanding of awe in relation to contemporary theories of the socio-psychological context, affects and arousal levels is presented.

The experience of awe is proposed as an aspect of *good enough art* in the ABR inquiry and in studying the process of the arts-based inquiry itself.

4.5. ARTICLE V WHAT DO WE SEE

What do we See when Looking at a Picture? – Preliminary Evidence of Validity in a Recently-Developed Safety Assessment Tool of Pictorial Artefacts, (SATPA). Signs in PAs are hypothesized to reflect the arousal levels in the central nervous system of the artist, where different activation patterns are associated with the neuroception of: (a) safety, (b) ambiguity, or (c) terror or collapse. Such patterns ought to be detectable in pictures through the recently developed (SATPA) – a tool that may aid the identification of treatment strategies used for clients. The outcomes of eight out of eleven identified perspectives of the tool were analysed, and appeared to discriminate the activation patterns in a preliminary validation. Interestingly, the picture evaluations performed by clinicians and laypeople were unambiguously similar, suggesting an innate response in detecting neuroception. The assessment tool aligned with the aim of the study, including identifying differences in the assessments undertaken by art therapists in relation to other health professionals. However, significant differences between the groups were not detectable. Our study suggests that the validity is good for assessing PAs based on a general inherent human capacity that can be utilized in clinical work and research processes.

A qualitative inquire of 15 informants' (out of N=30) ratings of 48 pictures each was undertaken. No differences in appraisal processes could be identified between the subgroups of raters, although different pictures were differently rated. The validity of assessing pictorial artefacts was theorized to rely on a general inherent human capacity that can also be utilised in clinical work and research processes. The value of assessment of PAs as measurement tools in clinical work and research was emphasized. Signs visible in PAs that seem to reflect the arousal levels in the central nervous system of the drawer/painter in line with the concept neuroception are detectable.

4.6. ARTICLE VI THE BODY IN THE MIND

The Body in the Mind – the Appearance of the Phenomenological Self Assessed through Pictures Before and After an Arts-based Psychotherapy Intervention for Gynaecological Cancer Survivors. Differences in neuroception, namely different experienced activation patterns of the central nervous system, are predicted to appear as recognizable signs in PAs conducted by clients. Thus, artwork conducted during therapy and assessment could be utilised to identify and visualise differences in experienced agency, self-efficacy, embodied felt sense and stress-levels. This premise was investigated utilizing the tool (SATPA) consisting of eleven defined perspectives with the potential of detecting different patterns of neuroception. As an external

validation, 65 pictures produced within a randomized clinical trial were analysed according to assessment tool criteria. The trial consisted of two arts-based psychotherapy interventions implemented using the format of Brief-Music Journeys (KMR; Korta musikresor), an adaptation of Guided Imagery and Music. Research participants were post treatment gynaecological cancer survivors who produced artwork of their body image experiences at three different time points. Inter-rater evaluations of pictures at baseline differed significantly from pictures created at post-test, $p < 0.001$, with very good effect sizes (ES above .80). The tool adequately measured the intended patterns with moderate to substantial agreement, with weighted kappa values of .61 (95 % CI .39 to .83, $p = .001$) and .59 (95% CI .36 to .82, $p < .001$), and co-variated with other analysed parameters of the data set. Changes in the clients' BI representations seemed to covariate with the clients' self-assessed mental health measures before ($N=57$) and after the arts-based interventions. The results of the two raters' appraisals of the clients' pictures, co-varied with the participants' self-assessed ratings on depression (MADRS; Montgomery & Åsberg, 1979), anxiety (Hospital Anxiety and Depression Scale; HADS-A; Zigmond, & Snaith, 1983) and quality of life (European Organisation for Research and Treatment of Cancer (EORTC-QLQ-C30 Quality of Life Questionnaire; Aaronson, Ahmedzai, & Bullinger, et al., 1991), where the significances of the (SATPA) ($p < 0.001$) were in accordance with those of the participants' self-assessments ($p < 0.01$ to $p < 0.0001$). Interestingly, the evaluation of the PAs seemed to detect an even stronger transformation with effect sizes above -.80, compared to the measures of the clients' self-assessments, which held effect sizes between -.42 -.69).

Pictures seen as communicative acts were hypothesized to reflect arousal levels in the central nervous system of the drawer/painter, in line with the concept neuroception.

A cautious optimism concerning the (SATPA's) potential of assessing arousal levels of real, lived bodies of clients through their artwork as proxy measures is proposed.

4.7. ARTICLE VIIA AND VIIB

4.7.1. Using Aesthetic Response, part I: The Rx6-Method.

Using Aesthetic Response A Poetic Inquiry to Expand Knowing, part I: The Rx6-Method. A step-wise research procedure of arts-based research (ABR) called the Rx6 method was presented. This ABR method is informed by expressive arts therapy, heuristic inquiry, attachment theory, and contemporary affective neuroscience, and is aimed at deepening the understanding of embodied felt sense. The Rx6 approach is based in aesthetics and a pragmatic pre-understanding inspired from an interpretive and a constructivist tradition. The method is a heuristic endeavour where art is applied towards the creation of meaning. Artwork, produced within the context of a randomized trial with parallel group design involving women treated for gynaecological cancer was used. Response art consisting of short written aesthetic

responses to pictorial artefacts was applied in a structured manner. The data provided a rich artistic material in which to dialogue with artefacts in search of a condensed response statement. The Rx6 method involves six steps: to relate, resonate, respond, reflect and react to results. Engaging in ABR can offer clinicians and researchers a deepened, expanded, and embodied understanding of the studied phenomena. The complexity of sharing implicit processes and tacit knowledge, its caveats and gains, along with theoretical perspectives of such undertakings, was presented and discussed. The value of the ABR in enhancing empathic resonance was proposed and exemplified. The arts-based inquiry holds its place in psychotherapy, in training programs in the health professions, including offering a certain self-supervision, and in team-building.

4.7.2. Using Aesthetic Response, Part II: Some Theoretical Perspectives on Arts-based research.

Using Aesthetic Response, a Poetic Inquiry to Expand Knowing. Part II: Some Theoretical Perspectives on Arts-based Research. Apart from being inspired from both an interpretive and a constructivist tradition, research methods based in aesthetics can thrive from a clear rationale concerning its perceptual building-blocks in both the intersubjective and intra-psychological domains. This article aims to address the complexity of sharing implicit processes and tacit knowledge in the arts-based inquiry. Layers of this inquiry are reflected along with theoretical perspectives of such undertakings. The article also offers a theoretical rationale for why to add and acknowledge important perceptual and affective building blocks in arts-based research (ABR). Through theories from expressive arts therapy, heuristic inquiry, attachment theory and contemporary affective neuroscience some thoughts on the embodied felt sense as a perceptual hub are shared. Based in contemporary attachment theory and psychotherapy research, a rationale is given for why engaging in ABR can offer clinicians and researchers a deepened understanding of the studied phenomena. Our undertakings are presented in part 1 of these two articles. From this embodied perspective, the described arts-based inquiry can be considered as a privileged way to nuance and enlarge understanding in both the intersubjective and intra-psychological domain, which could be particularly helpful to ABR researchers who are informed by a psychodynamic perspective.

CHAPTER 5. ADDITIONAL RESULTS

An incidental and interesting finding in this study relates to the drawings depicting a worrying professional meeting and may indicate the professional strain clinicians experience during their daily routines (Gerge, 2017; Gerge, 2017, submitted). Problems such as high burnout rates (Maslach, 2003; Maslach, Jackson, & Leiter, 1996; Maslach & Leiter, 2005), and compassion fatigue in health professions has been well characterised (Figley, 1995, 1997, 2002; Gerge, 2011a,b; Pearlman & Saakvitne 1995ab; Pearlman & Caringi, 2009; Wilson, 2004). Presumably, arts-based self-experiencing methodology can provide possibilities in supervision to make explicit, and overt, implicit states and tacit knowing about overburdening tasks, and how the suffering of other human beings impacts us in our professional lives.

CHAPTER 6. DISCUSSION

6.1. MAIN FINDINGS

The main findings are as follow:

- The importance of reduced arousal and heightened experience of safety as an outcome of psychotherapy.
- A proposed connection between experienced safety and positive affects, detectable in PAs.
- A developed assessment tool, the Safety Assessment Tool of Pictorial Artefacts, (SATPA) for assessing levels of perceived safety in PAs.
- The value of the picture as a rich source of information
- The general human capacity of appraisal of PAs, since different categories of evaluators such as laypeople and health professionals, rated the pictures similarly to the art therapists.

In this thesis, states of reduced arousal and increased positive affects and emotions are considered important to identify when assessing PAs conducted in therapy, including arts-based therapies and psychotherapies. The presence or absence of experienced safety (a theoretical concept), as a proxy measure of neuroception searched for in conducted artefacts (a methodology) was discussed. The importance of installing and measuring experienced safety in the therapeutic endeavour was elaborated by the development of the (SATPA) (method). The tool was developed to detect different patterns of arousal and neuroception in drawings and paintings in line with a neurophenomenological conceptualizing of a human being. Thus, offering a mechanism to evaluate the levels of perceived safety in pictures as an outcome corresponding to the phenomenological experience of implicit regulation. How this could be related to overcome traumatization, regained agency and post traumatic growth was reflected on. Parallels between contemporary attachment theory, affective neuroscience and the felt-sense experience of arts-based research was sketched from a first, second and third-person perspective. The importance of the safe place, as a

theoretical concept, possible to connect to the hypothesis of neuroception, as a methodology and as a phenomenological experience was highlighted. Thus, the (SATPA) offers a way to evaluate levels of perceived safety, through PAs.

The development of the tool was initially undertaken from an interpretivist stance. The tool was preliminarily validated in non-clinical and clinical populations.

The finding that the titles given on the pictures conducted and analysed in study 2a, did not appear important during evaluation is also worth noting.

An interesting and unexpected finding is that laypeople, health care professionals in general and psychologists and psychotherapists outside the field of art(s) therapy were able to rate the pictures similarly to the art therapists. It is important to emphasise that this is not a critique of art therapy as a profession but may be due to an innate human ability to identify symbols in pictures. If the PA is a robust and easily accessible source of information, how is it possible to add interest and a clinical holding of the art making process? This finding could also be an inspiration for other clinicians. The diversity of the ratings in relation to the more ambiguous pictures, points to the need of adding the reflections from the one who conducted the picture, in line with the practice of art therapy. This is normally done both in clinical work, when PAs are part of the processing, and when pictorial art is part of the qualitative or interpretivist research interview.

Interestingly, the group which scored above the others, in the small investigation of study 2c, (Ntot=30), was the visual artists (n=5). Maybe it is possible that the more you relate to PAs, the more nuanced your evaluation may be? This is a hypothesis to be tested in further studies.

Above all, the aim of the research was to add an easy accessible assessment tool, a tool ‘between thumb and index-finger’ available also to naïve evaluators, here defined as those not formally trained as art therapists. This was accomplished. The (SATPA) can preferably be combined with other assessments of PAs, and other measures, according to the interests of the researcher/clinician, and the clinical appearance of the client population.

6.1.1. VALIDATION OF THE DEVELOPED ASSESSMENT TOOL

In this inquiry, qualitative appraisals were analysed through quantitative measures. It was discussed if this is an epistemically adequate undertaking (Gerge, Gattino, & Pedersen, 2017, submitted). “... in quantitative research, any exception may lead to a disconfirmation of the hypothesis where exceptions in qualitative research are dealt to modify the theories and are fruitful” (Golafshani, 2003, p. 603). Although, replicability is important also in an interpretivist perspective. This can include items measuring levels of withstanding trauma and more affective qualities of PAs, which, according to Backos and Samuelson (2017), may not be fully captured in the current

scoring systems of artwork. Even though the statistical analyses conducted on perspectives 4 to 11 of the (SATPA) could be considered more related to observation (third-person perspective) than immersion (first-person perspective), the reflection of Backos and Samuelson (2017) need further attention.

6.2. ADDITIONAL FINDINGS – THE AESTHETIC RESPONSE

The aesthetic response was of certain interest as a source of information in the undertaken inquiry, where additional findings were:

- Methodological development of Arts-based Research – ABR.
- Method development of ABR, the Rx6 method of aesthetic responses
- The value of ABR in health professionals’ trainings and supervision
- Incorporating ABR as part of the (SATPA)
- Enhancing the single picture as a solid source of information

Apart from developing and preliminary validating the (SATPA) the thesis is considered to add knowledge to the arts-based research community, both concerning methodology and method (Gerge, Wärja, & Pedersen, 2017ab), where the value of an axiological standpoint (Gerge, 2017, submitted; Viega, 2016ab) as part of the research-process was highlighted.

The aesthetic response is both anchored in our hardwired biology, and works through the same pathways that human beings attach to each other (Gaensbauer, 2016; Gerge, Wärja, & Pedersen, 2017b; Stern 1985, 2004). Estrella and Forinash (2007) stated ‘By relying on postmodern perspectives, rooted in hermeneutics and intersubjective processes, qualitative research has allied itself with a reconsideration of the whole person in context’ (p. 382). This fits neatly with a neurophenomenological perspective. Estrella and Forinash (2007) further propose that through such approach empathy and the recognition of the otherness of the other becomes possible. This might constitute the same levels of experiencing the other, as the “gestalt of the other” that the relationally oriented psychodynamic psychotherapist contains inside her- or himself, as a tacit knowledge, thus, letting oneself become influenced of the affects and sensations that the experience of the other activates (first-person perspective as an enactment of second-person perspective). Such undertaking will of course be imprecise, hence the concept sloppiness (The Boston Change Study Group, 2002;

Stern, 2010), although still a crucial part of how humans make sense of togetherness. The ABR seems as a partly unproven pathway also in clinical work, and training, although, Bollas (1987) described both the aesthetic moment (Bollas, 1979) and the relational holding made explicit in the aesthetic response. The certain value of the arts as adding a holding environment on implicit levels, namely “art as co-therapist” was stated by Robbins (1980, 1987, 1988, 1994).

The realms of research and clinical work in psychotherapy and art(s) therapy are often separated practices, albeit psychotherapy and clinical work can be conceptualized as ongoing action research. Then, finding meaningful measures in the ongoing everyday research of clinical work, feeding back and integrating these into the new preunderstandings of the reflexive circle of clinical work is of utmost importance. By adding an accessible safety assessment tool of pictorial artefacts, (SATPA), this thesis has hopefully combined clinical relevance and research methodology in a meaningful way.

When accessing processes in therapy, more than one picture allows for tracking of changes over time, and for common themes to emerge. McNiff (1998) stated that it is important to consider the total context of what a person does, and not to base an evaluation strictly on an interpretation of isolated images. The portfolio-perspective was also proposed by Gantt and Tinnin (2007), though in this study the single drawing also seemed to give a rich amount of information. This might have implications on how PAs can be valuable parts of therapeutic processes, also outside of art therapy.

6.3. OUTCOME

The outcomes were:

- A developed tool, (SATPA), partly built on aesthetic response and cognitive appraisal of PAs as proxy measures for gaining information from the implicit realm.
- The value of the ABR in enhancing empathic resonance.

6.4. IMPLICATIONS FOR CLINICAL PRACTICE

In the studies of Van Cappellen et al. (2013) high significances were found for self-transcendent positive emotions making “people perceive others and the world as more benevolent, which in turn encourages people to endorse spirituality” (p. 1389). According to Van Cappellen, et al. (2013) the self-transcendent positive emotions seemed to increase the participants’ spirituality, especially concerning the non-religious participants, where spirituality was understood not only to be a coping strategy, but as an upward spiralling pathway closely connected to self-transcendent positive emotions. Referring to the “broaden and build”-hypothesis, Fredrickson

(1998, 2001) and Cameron and Fredrickson (2015), stated that positive emotions and states over time build positive resources for the individual. Thus, positive psychology-approaches, including “count your blessings-strategies” seem meaningful when shaping human behaviour (Layous, Chancellor, & Lyubomirsky, et al., 2011). As Ruyschart, (2014) stated “(p)ositive self-hypnosis with a focus on positive imagery contributes to strengthening “happy pathways. “ (p. 281). The presence of the safe state that may be assessed through the (SATPA), might be even more crucial to install in the psychotherapeutic endeavour, than has previously been conceptualized. The description of category A, a neuroception of safety, in the (SATPA) may also give directions of resource-activating suggestions, to be imagined, drawn, danced or played.

If the arts-based inquiry has the potential to add to a more nuanced understanding of the other, as is proposed (Estrella & Forinash, 2007; Gerge, Wårja, & Pedersen, 2017ab, Sanjani et al, 2017, Wiedenhofer, 2017), such inquiries ought to be part of the trainings to become clinicians and arts therapists. These trainings could, preferably, go beyond the level where medical students read and discuss novels as a part of their education (Wilson, Tucker, & Schutte, 2012). Particularly when training psychologists, psychotherapists and arts therapists, the capacity to perceive and encompass the own aesthetic response on a felt sense level (first-person perspective), could be hypothesized to enhance the empathic capacities of the students. In the dance therapy form authentic movement (Pallaro, 1999) this is a crucial part of the training. In Wiedenhofer (2017) the non-directive stance, before any movement is undertaken, could correspond to the first step of the heuristic inquiry (Moustakas, 1990, 1994), in Rx6 (Gerge, Wårja, & Pedersen, 2017a). Thus, corresponding to step 1, relating to the artefact (i.e. change role with the image) and step 2, resonating an immediate embodied felt sense. Although, with the aim of developing compassionate resonance, such an undertaking can have many different shapes. By knowingly enhancing the capacity to be in touch and give an answer from implicit levels, the relational aspect of “being with”, the I-Thou-position, can be enhanced also in trainings in arts- and ASC, altered states of consciousness-based interventions of psychotherapy. This might be of special value in the process of linking the implicit to the explicit, and will happen by letting oneself into “a particular state of consciousness”, according to Kenny (2006, p.101). She describes “being with” as an altered state of consciousness in music therapy, very close to the concept joint attention in art therapy (Hawes, 2016). Such shared inter-connectivity opens to the fingertip feeling of the relationally attuned therapists’ tacit knowledge of how to be together with their clients. The aesthetic response of the ABR-approach might be the answer to the question of how to help therapists to become more attuned, including heightening their “mindsight”, a concept coined by Siegel (2010), and defined as a state of focused attention with a heightened capacity to perceive the mind of the self and others.

The process of using the Rx6-method can easily be adapted to psychotherapeutic work, and the approach of letting yourself becoming “touched” is not new. In line

with relational psychodynamics and/or authentic movement Trondalen (2007, p. 203) with her music therapy-based work with patients suffering anorexia nervosa described using body listening, a process of open listening where what takes shape takes shape.

Gerge (2015) stated, in line with Bollas (1987):

“The ability to embrace oneself with compassion on conscious, preconscious, unconscious and deeply unconscious levels (Schoore 2014) - including to contain and make intelligible also experiences of shortcomings and powerlessness - increase the level of mentalizing (Allen & Fonagy 2006; Fonagy & Luytens 2015). It means increasing the capacity to take into account and reflect on the own and others' emotions and states when relating to oneself and others” (Gerge, 2015, p. 4).

The Rx6-method offers an easily accessible method that can be used by newcomers to the psychotherapeutic field and has the potential to be an important part of trainings and supervision in psychotherapy and arts therapies.

In study 3, the artefacts evaluated by the two evaluators were found to differ significantly pre-post interventions with large effect sizes, with minimum values of the 95% confidence interval (.27 to 1.95). These changes were in accordance to the self-assessed ratings of the research participants with effect sizes between small to large, considering the minimum values of the 95% confidence interval (.10 to 1.18).

However, these findings should be relativized, since the agreement between assessors went from fair to moderate, with a confidence interval of 95% (.39 to .82). It is expected that future studies can improve these levels of agreement, adding even more than two evaluators. How PAs conducted in psychotherapy covariate with outcome and change processes was initially addressed in a clinical population of gynaecological cancer survivors. I hope that the (SATPA) can potentially be of benefit in facilitating the decision-making process of clinicians. Thus, potentially adding to clinicians' understanding of how images are related to clients' ongoing neurophenomenology, namely; (a) their perceived embodied felt sense (Gendlin, 1978), (b) embodied minds, including image schemas (Lakoff & Johnson, 1980/2003, 1999), and, finally, (c) body images (Schilder, 1935/1978).

In psychotherapy processes, and in the arts- and ASC-based methods per se, the symbols and metaphors in the artwork, and how they take shape and change, as lives change, can be considered a gold mine of implicit processing, and change capability. The (SATPA) will hopefully add to a neurophenomenological understanding of pictorial artwork.

6.5. IMPLICATIONS FOR FURTHER RESEARCH

The process of meaning-making through relating to pictures is a complex semiotic endeavour and needs to be put in context – both intra-personal (Curtis, 2011, Skov 2014) and related to socio-cultural parameters (Betts, 2013; Forinash, 2016; Wide, 2005). For future research, it is desirable to consider how objective physiological endpoints can be used as parallel measures to assessed PAs. How objective endpoints, as biomarkers, covariate with the appraisals undertaken through the (SATPA) is, so far, un-investigated. Such undertakings, conducted by therapists or researchers alike, could validate the subjective appraisal of patterns of neuroception in PAs, and could be of interest both as an outcome of therapy processes and as a moment to moment tracking of the ongoing experienced felt sense as a proxy measure of physiology and body image.

However, the appraisal, including the axiological activation of the felt sense, when relating to a PA, seems as a possible, though not sufficiently travelled avenue. Contemporary neuro-affective knowledge points to the relevance of how certain parts of our central nervous system communicate in functional patterns (Deeley, Oakley, & Toone, et al, 2012; Demertzi, Soddu, & Faymonville, et al 2011; McGeown, Mazzoni, & Vannucci, et al., 2015; Raichle, MacLeod, & Snyder, et al., 2001) and makes sense in clinical practice (Lindvang & Beck, 2017). Then, psychotherapy methods that induce more mental processing in safe and well-regulated states might be considered as more “brain-friendly” (Cozolino, 2002; Schore, 2014), and thus fulfil the humanistic endeavour of psychotherapy (Wampold, 2012) more effectively. From such a perspective, therapies that make clients feel more relaxed and at ease when addressing what they need to work through, may be considered more humane. ASC-based methods as clinical hypnosis (Hammond, 1990), music therapy (Wang, Lib, & Panb, et al., 2014), and neurofeedback (Fragedakis & Toriello, 2014, Kirk et al., 2016) may have more in common than is usually thought of. If these methods, and if methods as art therapy (Hass-Cohen & Clyde Findlay, 2015), induce changed brain-wave patterns may be interesting investigations for future joint projects. If PAs can be hypothesized as reliable proxy measures of induced states of certain brainwaves and/or activity-patterns of functional networks remains to be shown. If so the implications are positive, since an easily assessable and robust variety of assessment possibilities lies open for clinicians and researchers interested in the PA and implicit processing. The here presented (SATPA) might be one avenue to travel the realms of the implicit. The bio-psycho-socio-existential model proposed by Gerge (2017, submitted) can potentially inspire such undertakings also outside the arts-based therapies, including research of PAs as outcomes of informants’ life-worlds.

Even if few doubt the “everyday-assessment” of ongoing clinical work, Wadeson (2002) called for a moratorium on art therapy assessments, as they hold such low levels of validity and reliability. In line with that, one of the informants of the Kaiser and Deaver study (2013) held the view that art therapists should not expend any more

resources on art therapy assessment when it is so critical to conduct outcome studies. However, Gilroy (2012) highlighted assessment as critical to the construction of the evidence base for art therapy, and pointed to the fact that art therapy remains without a critical mass of research. This thesis hopefully adds to that mass according to the reliability of the PA as a potentially important source of information. Very few validated art(s)-based evaluation tools exist (Betts, 2006; Storm, 2013), particularly in the post-trauma gradient (Gerge & Pedersen, 2017). Although this tool still needs further validation, it is now available to colleges in clinical work and research. The outcome of the preliminary validation was positive (Gerge, Wärja, Gattino et al., 2017, submitted).

Hopefully, researchers studying artefacts conducted in therapy and health-processes can be enriched from the here presented findings and models, including the neurophenomenological reflections, ABR-based methods and methodology discussion. In the arts-based inquiry researchers can use the arts to ‘‘gain a deeper level of awareness and new understanding and felt experience of their research topic’’ (Austin & Forinash, 2005, p. 461), and for representing data (Leavy, 2015; Schenstead, 2012). Chilton, Gerber, & Councill, et al. (2015) further stated that ABR ‘‘enhances transparency as research consumers are both welcomed and, in effect, required to view for themselves the empirical facts of artistic products’’ (p. 11). These statements can include artefacts in all senses, and qualitative or interpretivist research might nourish from becoming more embodied through the arts-based inquiry. It is humbling however, to realise the amount of further knowledge we need to gain in the important area of assessment of PAs, both concerning subjective and objective aspects of appraisal processes and how to construct validity and reliability.

6.5.1. KNOWLEDGE DISSEMINATION

With the overall aim to reach psychotherapists, therapists and researchers from diverse clinical fields and disciplines, seven articles were submitted to journals focusing on art therapy, clinical hypnosis and music therapy respectively. These were; Arts in Psychotherapy, International Journal of Experimental and Clinical Hypnosis, International Journal of Applied Positive Psychology and Voices : A World Forum for Music Therapy. Interestingly, the Rx6 method has already been referenced in three publications and one dissertation.

The researcher has also been invited to use the (SATPA) tool in a single case presentation (Wärja, Gerge, & Ugglä, et al., 2018, in preparation). Parts of the research described here have been presented at conferences held in Greece, Ireland, Netherland, Romania and Sweden. Hopefully this research can contribute to new knowledge for arts therapists, psychologists, psychotherapists, and researchers of health processes, positive psychology and creativity.

6.5.2. CHOICE OF OUTCOME MEASURES

Since the review of assessment tools of PAs (Gerge & Pedersen, 2017) showed absence of tools aimed at evaluating the process of overcoming traumatization and dysregulation, an assessment tool developed from a semiotic understanding on an interpretivist stance, was developed (Gerge, 2017; Gerge, 2017 submitted). Eleven perspectives potentially related to the concept neuroception were identified. The (SATPA) was subsequently validated using non-clinical material (article V; Gerge, Gattino, & Pedersen, 2017, submitted) and clinical material (article IV; Gerge, Wärja, Gattino et al., 2017, submitted). The following non-parametric and semi-parametric statistical calculations were used; in article V analysis of variance (one-way ANOVA; González-Rodríguez, Colubi, & Gil, 2012), describing means and standard deviations of the 113 evaluations of the six different pictures, see Table 2.

Table 2.						
Analysis of variance (one-way ANOVA), with means and standard deviations of the scores for the evaluations of the different pictures.						
Number of Subjects N _{tot} =113	Picture I score Mean (SD) N =	Picture II Mean (SD) N =	Picture III Mean (SD) N =	Picture IV Mean (SD) N =	Picture V Mean (SD) N =	Picture VI Mean (SD) N =
Art therapists	3.80 (1.15) N = 20	1.15 (0.36) N = 20	4.75 (1.65) N = 20	4.31 (0.88) N = 19	3.90 (1.83) N = 20	3.89 (1.70) N = 19
Lic. + art(s) therapists	4.05 (1.24) N = 21	1.00 (0.00) N = 21	5.28 (1.52) N = 20	4.05 (0.86) N = 21	3.52 (1.60) N = 21	2.71 (1.67) N = 21
Lic. psy. PDT	4.31 (1.06) N = 19	1.05 (0.23) N = 19	4.89 (1.56) N = 19	4.40 (0.60) N = 20	3.80 (1.44) N = 20	2.90 (1.37) N = 20
Lic. psy. CBT/int.	3.67 (0.89) N = 12	1.00 (0.00) N = 12	5.75 (1.81) N = 12	4.08 (0.29) N = 12	3.33 (1.72) N = 12	2.41 (1.44) N = 12
Lic. health care prof.	3.62 (1.20) N = 16	1.06 (0.25) N = 16	6.00 (1.71) N = 16	4.06 (1.68) N = 16	3.75 (1.84) N = 16	2.50 (1.46) N = 16
Laypeople	4.07 (1.25) N = 13	1.00 (0.00) N = 13	5.46 (1.33) N = 13	4.15 (1.07) N = 13	3.31 (1.80) N = 13	2.46 (1.66) N = 13
Lic. health care prof. Titles given	3.36 (1.12) N = 11	1.18 (0.60) N = 11	4.80 (1.87) N = 10	3.80 (0.63) N = 10	4.45 (1.92) N = 11	2.72 (2.00) N = 11
Total values	3.89 (1.15) N = 112	1.06 (0.36) N = 111	5.25 (1.64) N = 111	4.16 (0.76) N = 110	3.72 (1.70) N = 113	2.91 (1.70) N = 111
P-values	.399	.723	.224	.457	.691	.112

In article VI, the pictures produced at base-line displayed a more unsafe pattern of neuroception compared with pictures created after the arts-based psychotherapy interventions. When the mean of A, A/B, B/A, B, B/C, C/B and C for each drawing of the participants on perspectives/questions 4 to 11., were defined at base-line and compared with post-treatment, statistically significant differences according to the measured ratings were revealed, $P < 0.001$; through calculations of GEE - Generalized Estimated Equations (Hardin, 2005). Large effect sizes ($d \geq 0.8$) (Cohen, 1988) were also found, see Table 3.

Table 3.				
Mean and standard deviations, before-after the intervention, on ratings of pictures according to the (SATPA) (Gerge, 2017, 2017, submitted), including seven steps, 1-7, 1=calm and safe, 4=being worried and aroused and 7=in terror. GEE - Generalized Estimated Equations show that the results were statistically significant, $P < 0.001$. Effect size with the correspondent effect sizes included.				
Raters	Before Treatment Mean (SD) N=28	Post Intervention Mean (SD) N=28	Significance (GEE)	Effect size (CI 95%)
Rater 1	3.50 (1.78)	1,5 (1.00)	$p < 0.001$	-1.39 (-1.95 to -0.78)
Rater 2	3.54 (1.45)	2,29 (1.58)	$p < 0.001$	-0.86 (-1.36 to -0.27)

Aspects of depicted body-representations, present or absent in the human figure-drawings, pre-post interventions were analysed with Fisher's exact test (p value; Pei, Zuleger, & Macklin, et al., 2014), see Table 4 and 5.

Table 4.				
Aspects of depicted body-representations, present or absent in the human figure-drawings:				
	Baseline, N= 28 (%)	Post-treatment, N= 28 (%)	Odds ratio (CI 95 %)	Fisher's exact test (p value)
Empty genitals	5 (17,9%)	0 (0,0%)	0	$p = .05$
Absent/non-existent genitals	7 (25%)	2 (7,1%)	4.30 (0.81 to 23.09)	$p = .14$
No face	6 (21,4%)	1 (3,6%)	7.36 (0.82 to 65.83)	$p = .10$
Fragmented human figure	7 (25%)	2 (7,1%)	4.30 (0.81 to 23.09)	$p = .14$
Pain	17 (60,7%)	9 (32,1%)	3.26 (1.08 to 9.77)	$p = .06$
Tears/weeping clouds	2 (7,1%)	2 (7,1%)	1.00 (0.13 to 7.64)	$p = 1.00$
Encapsulated	3 (10,7%)	3 (10,7%)	1.00 (0.18 to 5.43)	$p = 1.00$

Table 5.				
Changes in body size:				
	Baseline, N= 20 (%)	Post-treatment, Ntot= 20 (%)	Odds ratio (CI 95 %)	Fisher's exact test (p value)
Body size expanded	20 (100%)	16 (80%)	0	p= .10
Body size diminished	20 (100%)	0 (0%)	0	p<.001

The (SATPA) seemed to adequately measure intended patterns with a weighted kappa (Cohen, 1968) of .61 (95 % CI .39 to .83, $p=.001$) and .59 (95% CI .36 to .82, $p<.001$). In addition the clients' self-assessed values on scales for depression, anxiety and QoL; (MADRS; Montgomery & Åsberg, 1979; anxiety, Hospital Anxiety and Depression Scale; HADS-A; Zigmond, & Snaith, 1983; quality of life; European Organisation for Research and Treatment of Cancer (EORTC-QLQ-C30 Quality of Life Questionnaire; Aaronson, Ahmedzai, & Bullinger, et al., 1991), before and after arts-based psychotherapy intervention (N=57) was calculated through generalized linear mixed model with the GLIMMIX procedure. These latter findings are presented in Table 6 below. They were processed through statistical analysis performed using a SAS statistical software (version 9.3, SAS Institute Inc., Cary, NC, USA) (Littell, 1996) and the measured changes before-after the interventions covariates with the findings of the analyses of the (SATPA).

Table 6.

Self-assessed depression, anxiety and QoL in gynaecological cancer survivors (total sample) before and after arts-based psychotherapy, N=57. Calculations through generalized linear mixed model with the GLIMMIX procedure. Follow-up at 7 months after posttest.

Measurements	Baseline Ind. n=18 Gr. n=39 M (SD)	Posttest Ind. n=15 Gr. n=27 M(SD)	Baseline- Posttest d	Follow-up Ind. n=15 Gr. n=21 M (SD)	Baseline - Follow- up d	Baseline- posttest 95% CI p-value	Baseline- Follow-up 95% CI p-value
MADRS	12.2 (8.10)	6.78 (5.03)	0.64	6.52 (7.12)	0.69	-4.73 (- 6.73 to - 2.72) <.0001	-4.21 (- 6.31 to - 2.72) 0.0002
HADS-A	7.73 (3.82)	5.44 (3.48)	0.60	6.14 (3.97)	0.42	-2.12 (- 3.02 to - 1.22) <.0001	-1.52 (- 2.46 to - 0.58) 0.002
EORTC-QIQ- C30 Global QoL	65.6 (20.4)	74.2 (13.9)	0.42	74.8 (18.2)	0.45	7.47 (1.62 to 13.32) 0.013	7.27 (0.93 to 13.60) 0.025
EORTC-QLQ- C30 Emotional functioning	64.3 (23.6)	77.6 (20.0)	0.56	79.2 (22.2)	0.63	13.01 (4.29 to 21.74) 0.004	14.30 (5.06 to 23.53) 0.003
EORTC-QLQ- C30 Social functioning	72.8 (27.8)	84.5 (21.0)	0.42	87.5 (18.4)	0.53	10.27 (2.70 to 17.86) 0.009	11.86 (3.63 to 20.08) 0.005

6.6. LIMITATIONS

To summarize the limitations of the studies, several factors should be taken into consideration:

Concerning study 1. The generalizability of the results of an ABR inquiry are unclear, and maybe not possible to achieve. This is also true for comparability. Since the aesthetic response of a pictorial artefact is a subjective experience, how this can be transferred to other artefacts, populations, other research-paradigms and modalities is a growing research area.

Concerning study 2a. some reflections were drawn and a preliminary assessment tool, (SATPA), was built from the presented descriptions and analyses of 122 healthy

informants' pictures - If the perspectives of the tool are adequate for clinical populations have only been preliminary explored. At this stage it cannot be stated to what degree the (SATPA) measures, for example unsecure attachment or posttraumatic conditions, compared to an appraisal of a neuroception of safety since the liaisons between these concepts are prominent although unspecified. Furthermore, how patterns of presence and absence of states, affects, emotions, primary and secondary metaphors in PAs are related to preferred states of safety and change in different clinical populations remains to be shown. Naturally, differences exist between clients and non-clients. Clients in somatic care, such as burn units (Appleton, 2001), will presumably differ compared to those with medically treated oncological diseases (Ho et al., 2010), or those with PTSD (Avrahami, 2006) or severe attachment deficits and/or abuse experiences (Wieland et al., 2011).

Also in perspective 11. the existential theme, albeit described in the three categories A, B and C, in relation to perceived neuroception, the link between ongoing physiology and existential stance is speculative, even though a neuro-phenomenological perspective encapsulates these seemingly endpoints of the human experiential continuum. Since, this is a starting point, the existential perspective was incorporated, as dysregulated and traumatised clients often suffer from existential loss and uncertainty. Potentially, the phenomenological experience of overcome trauma and dysregulation often incorporates both physical release and experiences of awe or changed existential believes.

In this material, primary metaphors were difficult to sort from secondary, more symbolised metaphors. Further work remains concerning conceptualising and evaluating these categories.

Concerning study 2b. As an ethical issue the researcher chose not to add "C"-pictures into the screening, apart from picture III, which could be evaluated as a "C", since such C-pictures are mostly conducted by persons/clients in a great deal of despair. In this study the informants were not clients and their drawings seldom depicted C-pictures, namely situations related to life-threats and submission including experiences of severe threat. This might have resulted in an over-estimation of "Cs" in the "B" pictures since the informants did not have an adequate benchmark of a C picture.

In the (SATPA) the undertaken operationalization was based on a theorized rationale for the eleven categories, in relation to hypothesized activation patterns of the central nervous system in line with neuroception. It was not investigated if some of the nine of the eleven categories, used in the analysis were more important and/or solid than the other. To investigate this, formal validation through psychometric analyses needs to be performed.

Another limitation was that the 116 informants involved in the study, were just a part of the potential informants. More screenings were spread, than were received.

Concerning study 2c. Albeit the appraisal of affects according to the qualitative analyses of the subgroup of 15 informants' described appraisal-processes seemed to be an important avenue in decision-making, the conclusions are preliminary.

Concerning study 3. Patterns in pictorial artefacts, measured by two evaluators with the (SATPA), seemed to co-vary with the research clients' self-assessed levels of depression, anxiety and QoL. Although, the measured changes in self-assessed health before-after the interventions co-varied with the findings of the analyses of the (SATPA), and could be hypothesized to relate to preferred states of safety and change capability in a clinical population, the results are preliminary.

6.7. FUTURE DIRECTIONS FOR RESEARCH

The here undertaken inquiry indicated the need of further research, concerning:

Study 1; how to structure the ABR's potential to deepen embodied understanding and empathic resonance. The generalizability of the heuristic inquiry needs further reflection.

Study 2a; further studies are warranted to research if the different perceptions of safety and threat; A, B and C, and the perspectives to look for in relation to A, B and C in PAs, are valid signs to identify in pictures generated by disparate clinical groups, and subsequently if the reflected states of safety will differ or be similar.

Study 2b; further studies of the appraisal process of PAs are warranted, re material used, clinical categories, arousal levels and motifs and themes.

Study 2c, further qualitative and quantitative analyses are warranted. Also, formal validation of the (SATPA) through psychometric analyses ought to be performed.

Study 3; the initially validated results need further studies in different clinical populations, both concerning researched categories and numbers, inter-rater-reliability and concerning how the scorings of the (SATPA) potentially co-varies with other measures.

6.8. PERSONAL EXPERIENCE GAINED FROM DOING THIS RESEARCH

The personal gains of the researcher will be presented, referring to first person in the following section. These gains involve learning on how to reflect on and structure information, how to design a study, and how to analyse data.

By undertaking the task of a doctoral thesis, I grow both as a researcher and as a clinician. The possibilities for collaborative work involved in this study, including co-authoring articles with Margareta Wärja, and my supervisors Gustavo Gattino and Inge Nygaard Pedersen, have deepened my interest in joint perspectives on research, as did the method-development of ABR together with M. Wärja. The process of conceiving and publishing the articles was both exhausting and energizing, though, above all a humbling experience, a path-finding process similar of climbing mountains. When I reached the top my outlook was changed, compared to starting out in the vale. And standing there, after the exertion, I saw more mountains, and beyond them even more places from where to take stances and perspectives in the scientific landscape.

What I have learned from doing this research is above all a deepened understanding of the research process, including the interpretivist stance and qualitative research methodology, the arts-based inquiry, axiology as an avenue to new knowledge of studied phenomena, and how to quantify and discuss research findings. Furthermore, the process of conceptualising phenomena and the beauty of the multiplicity in how to answer the question “what is this about?”, has been a humbling though profoundly fun process. Under this undertaking I found neurophenomenology and my clinical and supervisory work outside of this research project has become even more rewarding.

6.9. CONCLUSIONS

This research provided preliminary evidence for the value of neuroception, especially the neuroception of safety, as a conceptual construct to search for in PAs conducted in therapies. An easily accessed tool, (SATPA), was developed and preliminary validated, thus offering eleven perspectives on what to look for in PAs. The (SATPA) was hypothesized to add to conceptualizing strains and obstacles in clients, and add knowledge on how to facilitate the process of retaking health, especially when focusing on implicit knowledge and the perception of safety.

The arts-based endeavour in research and psychotherapy may open an avenue to a deepened understanding of implicit processing (Gerge, 2017, submitted; Gerge, Wärja, & Pedersen, 2017ab; Viegas, 2016a,b). Such approach can nourish a deepened understanding of how we make sense together. As “social actors ... are ... usually reflexive, engaged with others in negotiating their worlds, and constantly talking and

making sense” (Wetherell, 2015, p. 152). Since humans can both draw, speak, and write, why not gather as rich an account as possible? It is hoped that this research can contribute to further development of robust and sound assessment tools of PAs, be it in research or clinical work. Constructive collaboration between experts in both fields is essential for such development, which can add to more precise and well-tailored interventions for troubled clients in psycho-social interventions in rehabilitation medicine and in psychotherapy.

The gathered knowledge of this thesis hopefully heightens the arts- and ASC-based psychotherapies’ certain value in the field of treatment of dysregulated patients, be it in rehabilitation-medicine, pain-treatment, in the field of psycho-traumatology, or in psychotherapy in general.

The dissertation can contribute to increased awareness of:

- * The value of using pictorial artefacts, both as vehicles for therapeutic change-processes and temporary end-points/proxy measures, in psychotherapy and rehabilitation-medicine and as measures in research.
- * How pictorial artefacts conducted in (psycho)therapy can be assessed in relation to states, and functions instead of traits, with a certain scope on patterns of ongoing neuroception, including experienced safety and regained existential health.
- * How pictures can be understood as proxy measures in relation to changed implicit structures, as; (a) embodied schemas/somatic ego states (Watkins, 1978; Watkins & Watkins, 1997), (b) supra-ordinate self-schemas (Horowitz, 2014), (c) meta-structures (Merleau-Ponty, 1962), (d) other aspects of the embodied mind (Lakoff & Johnson, 1980/2003), (e) contemporary affective neuroscience, as conceptualized in neurophenomenology, and, finally, (f) how humans make sense together in the enactment-focused epistemology of life.

Hopefully this PhD study adds to an enhanced interest in the PA in research and clinical practice. In addition, the value of the arts-based inquiry has been highlighted, since it offers a linkage between practical, theoretical and aesthetical levels of perception and can be theorized to encompass essential ingredients when doing research in partly implicit domains. In the arts-based inquiry images, symbols and metaphors can be embodied, as we, ourselves, can become touched when in contact with the phenomena we are researching, for example arts-based client-made artefacts. This seems crucial for clinicians using arts in their work, and can be an important methodology in trainings of clinicians.

Hopefully the findings of this thesis can nourish those who want to understand more, and explore in clinical work or research, the creative processes of regained safety as an important process-variable and outcome of therapy and of the human condition.

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Appendix A. Data Use Agreement

DATA USE AGREEMENT

This Data Use Agreement (the "Agreement") is made by and between Karin Bergmark (KB) at Clinical Cancer Epidemiology, Department of Oncology-Pathology, Z5:U1, Karolinska Institute, Stockholm, and at the time of the data collection Karolinska University Hospital, Stockholm, currently at Sahlgrenska Academy and Sahlgrenska University Hospital, Gothenburg, Margareta Wårja, (MW and Expressive Arts Stockholm AB) and Anna Gerge, Department of Humanities, Aalborg University, Aalborg, Denmark (the "Recipient"), hereinafter jointly or individually the "Parties" or the "Party".

WHEREAS

The Parties are involved in ongoing research collaboration regarding Music Therapy and Expressive Arts for Women Treated for Gynaecological Cancer.

KB and MW have collected personal data in the field of oncological rehabilitation. The data has been collected by Margareta Wårja under the supervision of Karin Bergmark.

Recipient wishes to use certain such data for research purposes and KB and MW agrees to transfer such data to Recipient for the agreed purposes.

IT IS AGREED as follows:

1. ACCESS TO DATA

Recipient will perform research as described in the research plan in Attachment 1, (the "Research Plan"). KB and MW shall provide to Recipient the data specifically described in the Attachment 2, (the "Data Set").

2. PERMITTED USE

Recipient agrees to use the Data Set only for the purposes described in the Research Plan and not to use the Data Set for any other purposes. Recipient undertakes not to use the Data Set for any for-profit or commercial purposes.

3. AUTHORIZED USERS

Recipient shall ensure that only individuals specifically designated in the Research Plan ("Authorized Users") will have access to or use the Data Set, and only after having agreed to the terms of this Agreement. Any new users will require the prior written approval of KB and MW before receiving access to the Data Set.

1 KB
W

Recipient may not transfer any information included in the Data Set to any third party unless approved in writing by KB and MW in each case.

4. DATA PROTECTION

Any information included in the Data Set shall be securely safeguarded, encrypted and appropriately protected from unauthorized access, use and theft. Recipient will, as a minimum, observe the requirements on IT security set forth in Attachment 3. If Recipient becomes aware of any unauthorized access to or use or disclosure of information included in the Data Set, Recipient will notify KB and MW immediately.

KB and MW have collected personal data from human subjects and are the controllers of the data. Any information in the Data Set transferred to Recipient has been coded and the link between such codes and the individual subjects shall be retained by KB and MW. Recipient agrees not to use the information included in the Data Set to identify the subjects nor to contact them under any circumstances.

5. RESULTS

Recipient agrees that KB and MW shall retain title to any information included in the Data Set, in Recipient's or any subcontractor's possession.

Recipient will inform KB and MW of research results related to the Research Plan.

Each Party shall retain title to any intellectual property rights made under the Research Plan and possible revised versions. Nothing herein shall be deemed to constitute the grant of any license under any intellectual property right.

6. PUBLICATION

The Parties agree to work together to make the results of the research publicly available. In accordance with scientific custom, the contribution of KB and/or MW will be noted in all written or oral public disclosures, by co-authorship or acknowledgement as appropriate.

Authorship will follow according to the Vancouver protocol.

7. CONFIDENTIAL INFORMATION

For the purpose of this agreement, "Confidential Information" includes any information in the Data Set that, directly or indirectly, may be referable to a human subject, such as produced artifacts and gathered clinical charts. Recipient agrees to keep confidential and not publish, make available or

2 KB
MW

otherwise disclose the Confidential Information, except to such Authorized Users that are listed in the Research Plan or approved in writing by KB and MW, who are bound by the same confidentiality and non-use obligations as Recipient under this Agreement.

8. COMPLIANCE WITH RULES AND REGULATIONS

The information in the Data Set has been collected from human subjects under a protocol that has been approved by the Regional Ethical Review Board in Stockholm. Head of the research department is the Oncology Clinic at Karolinska University Hospital. The ethical application was signed by Roger Henriksson, head of the Oncology Clinic at the time. Ethical approval was granted 2012-01-19, no 2011/2131-31/5.

Recipient will use the Data Set in compliance with all applicable legislation, rules, regulations, guidelines and ethical requirements, as well as any constraints set forth by Institutional Review Boards, applicable to the research under the Research Plan and the handling and protection of the information in the Data Set.

9. TERM AND TERMINATION

This Agreement shall enter into force on the date of the last signature by the Parties and remain in force 5 years or until the research under the Research Plan has been completed, whichever occurs first.

This Agreement may be terminated by either Party for any reason by giving the other Party ninety (90) days written notice.

KB and MW shall have the right to terminate this Agreement with immediate effect if Recipient is in breach of its obligations under this Agreement.

Upon expiration or termination of this Agreement for any reason, Recipient will discontinue the use of the information included in the Data Set. When the research under the Research Plan is completed, or within thirty (30) days of termination of this Agreement, whichever occurs first, Recipient will return or destroy all copies of the information in the Data Set, as instructed by KB and MW. Recipient will, however, be entitled to retain such copies that are mandatory to keep under applicable rules and regulations.

10. NOTICES

Formal notices to be given under this Agreement shall be in writing and be delivered to the person on the address stated below, unless the receiving Party has specifically notified the sending Party of another address for this purpose. The notice may be delivered personally in writing, by e-mail or by letter but always with receipt acknowledgement.

3 KB MW

These persons shall be the Parties' contacts for questions regarding this Agreement:

For Karin Bergmark and Karolinska University Hospital

Name: Karin Bergmark, MD, PhD
Address: Clinical Cancer Epidemiology, Karolinska Institutet, Z5:U1, Karolinska University Hospital, 171 76 Stockholm
and
Sahlgrenska Academy, Department of Clinical Sciences, Oncology Clinic, Sahlgrenska University Hospital, 413 45 Gothenburg
Telephone: +46 739 739 044
E-mail: Karin.Bergmark@vgregion.se

For Margareta Wårja and Expressive Arts Stockholm AB

Name: Margareta Wårja
Address: Fjällgatan 23
Telephone: +46 70 749 07 56
E-mail: margareta.warja@expressivearts.se

For Recipient

Name: Anna Gerge
Address: Framnäs vägen 4 A, 18531 Vaxholm
Telephone: +46 709 549 810
E-mail: anna@insidan.se

11. ASSIGNMENT

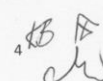
Recipient may not assign or sublicense its rights or obligations under this Agreement to any third party without the prior written consent of KB and MW.

12. AMENDMENTS

No provision of this Agreement may be amended, modified or otherwise changed, other than by an instrument in writing duly executed on behalf of the Parties

13. APPLICABLE LAW AND DISPUTES

This Agreement shall be governed by the laws of Sweden.



This Agreement has been executed in three (3) originals, of which the Parties have taken one (1) each.

Department of Humanities, Aalborg University will receive a copy of the signed Agreement without any necessary delay.

Karolinska University Hospital

Date: *November 25, 2016*
Place: *Stockholm*

Karin Bergmark
Karin Bergmark

Margareta Wärja (and Expressive Arts Stockholm)

Date: *November 25, 2016*
Place: *Stockholm*

Margareta Wärja
Margareta Wärja

Anna Gerge

Date: ~~November~~ *December 6, 2016*
Place: *Stockholm*

Anna Gerge
Anna Gerge

5XB #

ATTACHMENT 1: RESEARCH PLAN

According to the research plan by Anna Gerge, Aalborg University.

Detailed specification of *the purposes* for which Data Set may be used:

Data for the PhD-studies of Anna Gerge, Department of Humanities, Aalborg University, Denmark.
Proposed title: "The impact of the unthought known – Image formation and change in arts- and trance-based therapies, including receptive music therapy: a theoretical and phenomenological perspective on experience and image formation in psychotherapy".

Authorized user: Anna Gerge

6 KB

ATTACHMENT 2: DATA SET

Detailed specification of *the Data Set* to be transferred:

Artefacts produced by the study persons, in duplicated form or original.

Written material in connection with the artefacts by the study persons, copies of original data.

Therapists' process documentation, original data.

Study results relevant for the research questions, in collaboration with and after approval of Margareta Wärja and Karin Bergmark.

FB
KB JW

ATTACHMENT 3: IT SECURITY REGULATION

Access protection:

When computer equipment and removable storage media are not under supervision, the equipment and the media are to be locked away to protect them from unauthorised use, tampering and theft. Otherwise, all personal data must be encrypted. Personal data on laptop computers and their removable storage media must always be encrypted.

Back-ups:

Personal data must be regularly backed up. These copies are to be kept separate and well protected so that the information can be recovered after a crash.

Authorization:

If the computer is used by more than one person, access to personal data must be controlled with a technical authorization system. Authorization is to be confined to the person(s) who need the information in their work. Usernames and passwords are personal and non-transferrable. Procedures must be in place for the granting of authorization.

Log:

If the computer is used by more than one person, an automatic log or similar must be installed to make it possible to monitor who has had access to personal data at a future date. This log is to list the user, the date and time of access, and the names of the person(s) whose data was retrieved. This information is to be checked as necessary.

Data communication:

External data communication links are to be protected with a callback or other technical function for checking authorization. Personal data transferred via data link to a computer located outside the jurisdiction of the organization must be encrypted.

Destruction:

When stationary or removable storage media containing personal data are no longer to be used for their intended purpose, all storage media must be destroyed. Alternatively, the personal data must be erased in a way that is impossible to retrieve.

Repair and service:

When computer equipment is repaired or serviced by a third party, a security agreement must be signed with the service company in question.

When computer equipment is being serviced, all storage media containing personal data must be removed; if this is not possible, the service must be carried out under the supervision of the organization.

Service via data link may only proceed after the person performing it has been securely identified. Service personnel are to be given access to the system for the duration of the service only. If a separate communication channel is in place for service, it must be kept closed when service is not being carried out.

8 TB
cw

ATTACHMENT 3: IT SECURITY REGULATION

Access protection:

When computer equipment and removable storage media are not under supervision, the equipment and the media are to be locked away to protect them from unauthorised use, tampering and theft. Otherwise, all personal data must be encrypted. Personal data on laptop computers and their removable storage media must always be encrypted.

Back-ups:

Personal data must be regularly backed up. These copies are to be kept separate and well protected so that the information can be recovered after a crash.

Authorization:

If the computer is used by more than one person, access to personal data must be controlled with a technical authorization system. Authorization is to be confined to the person(s) who need the information in their work. Usernames and passwords are personal and non-transferrable. Procedures must be in place for the granting of authorization.

Log:

If the computer is used by more than one person, an automatic log or similar must be installed to make it possible to monitor who has had access to personal data at a future date. This log is to list the user, the date and time of access, and the names of the person(s) whose data was retrieved. This information is to be checked as necessary.

Data communication:

External data communication links are to be protected with a callback or other technical function for checking authorization. Personal data transferred via data link to a computer located outside the jurisdiction of the organization must be encrypted.

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Repair and service:

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Service via data link may only proceed after the person performing it has been securely identified. Service personnel are to be given access to the system for the duration of the service only. If a separate communication channel is in place for service, it must be kept closed when service is not being carried out.

8 15 15
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Appendix B. Example of Informed Consent

Vaxholm 2017-01-10 1(2)

För kännedom!

Inom ramen för att jag håller på att doktorera vid det internationella forskningsprogrammet Doctoral Programme in Music Therapy, Aalborgs University, Danmark, <http://www.mt-phd.aau.dk/> har jag utvecklat ett bedömningsinstrument för bilder gjorda i terapier. Syftet är att det ska underlätta för kliniskt verksamma kollegor kring att under pågående session kunna bedöma patienters grad av reglering, lugn, anspänning eller skräck, och förstås även följa förändringsprocesser i terapier över tid. Förutom en innehållsanalys på knappt 300 insamlade bilder har också den litteratur som finns avseende hur bilder kan tolkas, framför allt utifrån bildterapi-litteraturen i förhållande till psykotraumatologi, bidragit till det bedömnings-instrument jag utvecklat.

Nästa steg är att samla ihop bedömningar på ett färdigt material (det handlar om sex bilder som jag valt ut från de knappt 300 bilder mina 122 informanter har gjort). De här informanterna är alla verksamma kliniker och de har fått teckna en bild på ett oroande patient/klient-möte respektive en bild där de känt att de kunnat göra en insats i sitt arbete och där det har känts bra i mötet med patienten/klienten. De 122 informanterna är medvetna om att deras bilder eventuellt kan komma att bedömas av andra personer och har gett informerat samtycke till detta.

Här kommer nu mitt bildbedömningsinstrument tillsammans med de sex ”test”-bilderna. De tar cirka 15 minuter att ta ställning till och jag samlar in skattningar från många olika professionella vårdgivare, inklusive bildterapeuter, musikterapeuter, uttryckande konstterapeuter och förstås psykologer, psykoterapeuter och psykiater. Även hur människor som inte är verksamma i psykoterapeutiskt/psykologiskt arbete uppfattar bilderna är värdefullt att ta del av.

Som ett led i min validering av bedömningsinstrumentet har du möjlighet att skatta de här sex bilderna. Genom att du gör det får jag en möjlighet att se hur pass överensstämmande olika människors skattningar är och om någon särskild yrkeskategori särskiljer sig. Utifrån resultatet kan jag med din hjälp lära mig mer om hur bilder uppfattas och om det är meningsfullt eller inte att använda det bedömningsinstrument som jag har utvecklat.

Om du har tid och lust vore jag mycket tacksam om du kan tänka dig att fylla i din skattning av de sex bilderna. De tre första frågorna är till för att föra dig i relation med bilden. De följande frågorna, nummer 4-11, skattar du helt enkelt utifrån om du upplever bilden som; A – stämmer med en neuroception av trygghet, B – stämmer med en neuroception av ambivalens/oro och C – stämmer med en neuroception av livsfara/kollaps. Begreppet neuroception (Porges, 2003a,b, 2007) avser vår kontinuerligt pågående bedömning av om vi upplever trygghet, oro eller överväldigande hot om livet i nuet.

Om du inte har någon åsikt om någon eller flera av frågorna – hoppa helt enkelt över dem, t.ex. fråga 6. – vilka färger ser du? – hoppar du över då det inte är färgbilder du ska ta ställning till.

Resultaten från dina och de andras skattningar kommer att redovisas i tabellform där ditt kön och yrkeskategori kommer att framgå. Din anonymitet garanteras. Om du kan tänka dig att delta som informant, ber jag dig dels fylla i dina skattningar och signera det informerade samtycket med ditt namn och namnförtydligande - se nästa sida.

Tack för att du tagit dig tid att läsa den här texten.

Vid frågor, ta kontakt med:

Anna Gerge, PhD student, fil mag, leg psykoterapeut, 0709-549 810 anna@insidan.se

Mörbydalen 12, 182 52 Danderyd

Huvudhandledare: Inge Nygaard Pedersen, associated professor, PhD, innp@rn.dk

Aalborg University, Denmark

2(2)

Informerat samtycke

Anna Gerge får i samband med valideringen av ett bildbedömningsinstrument, som hon utvecklat inom ramen för hennes doktorandstudier vid det internationella forskningsprogrammet Doctoral Programme in Music Therapy, Aalborgs University, Danmark, <http://www.mt-phd.aau.dk/> , använda mina skattningar för att se om det föreligger skillnader mellan hur olika yrkesgrupper inom vården skattar de sex bilderna.

I förekommande fall får min skattning kopplad till min könstillhörighet och min yrkeskategori anonymt publiceras i vetenskaplig tidskrift.

Jag har läst igenom informationsbladet.

Jag har haft möjlighet att ställa frågor om forskningen.

Jag förstår att mitt deltagande är frivilligt.

Jag är medveten om att jag när som helst har möjlighet att dra tillbaka mitt medgivande.

Dagens datum:

Namn:

Namnförtydligande:

Ja tack, jag vill ha information om de resultat studien kommer fram till och lämnar därför min mailadress för att få ta del av forskningsresultat:

Vid frågor:

Anna Gerge, 0709-549 810, anna@insidan.se

Vaxholm 2017-01-10 1 (2)

As information!

When studying at the International Research Programme, Doctoral Programme in Music Therapy, Aalborg University, Denmark, <http://www.mt-phd.aau.dk/>, I have developed an assessment tool for pictures conducted in therapies. The aim is to facilitate colleagues assessments of whether clients are; (a) well regulated/calm, (b) in tense or (c) fearful during sessions and, of course, also be of help when following changes in therapies over time. A content analysis of almost 300 collected pictures and literature studies, with a certain focus on art therapy literature in relation to psychotraumatology, has contributed to the developed assessment tool.

The next step is to gather assessments on six pictures selected from the pictures conducted by the 122 informants. These informants are all active clinicians and have depicted a worrying patient/client meeting and a clinical meeting where they felt that they were able to make a positive impact through their work (reassuring meeting). The 122 informants are aware that their images may be assessed by other persons and have given informed consent to this.

Here comes my assessment tool of pictorial artefacts along with the six "test" images. It takes about 15 minutes to evaluate the pictures. I am collecting evaluations from many healthcare providers, including art therapists, music therapists, expressive art therapists and, of course, psychologists, psychotherapists and psychiatrists. Also how laypeople perceive the pictures is of interest.

As part of my validation of the assessment tool, you have the opportunity to evaluate these six pictures. By your evaluation, I get an opportunity to see similarities and differences in peoples' evaluations, and if any particular professional category will do evaluations that differs from the others. Based on the results, I can, with your help, learn more about how pictures are perceived and whether it is meaningful or not to use the assessment tool I have developed.

If you have the time and energy, I would be very grateful if you could evaluate the six pictures. The first three questions are used to bring you in relation to the picture. When evaluation the following questions, numbers 4-11, you are supposed to conduct a taxing based on whether you experience the image as; A – in line with a neuroception of safety, B – in line with a neuroception of ambivalence / concern /worry, and C -in line with a neuroception of enhanced danger/ life threats / collapse. The term neuroception (Porges, 2003a,b, 2007) refers to our ongoing assessment of whether we experience safety, concern/worry or overwhelming threats of life in the present now.

If you have no opinion about some of the perspectives - just skip them, for example. Question 6 - What colours do you see? – skip that question as there are no colour pictures to be considered.

The results from your and others' evaluations will be presented in tabular form, where your gender and occupation category will be displayed. Your anonymity is guaranteed. If you can think of participating as an informant, I kindly ask you to fill in your evaluations and sign the written informed consent with your name and name clarification - see next page.

Thank you for taking your time to read this text.

For questions, please contact:

Anna Gerge, PhD student, MS, lic. psychotherapist, +46 709-549810 anna@insidan.se

Mörbydalen 12, 182 52 Danderyd

Principal supervisor: Inge Nygaard Pedersen, Associate Professor, PhD, Innp@rn.dk

Aalborg University, Denmark

2 (2)

Informed consent

In connection with the validation of the SATPA, developed in the framework of Anna Gerge's doctoral studies at the Doctoral Programme in Music Therapy, Aalborg University, Denmark, <http://www.mt-phd.aau.dk>, Anna Gerge is allowed to use my evaluations to see if there are differences between how different categories of healthcare providers evaluate the six pictures.

If applicable, my evaluation may be linked to my gender identity and my occupational category and may be published anonymously in a scientific journal.

I have read through the information sheet.

I have had the opportunity to ask questions about the research.

I understand that my participation is voluntary. I am aware that at any time I have the opportunity to withdraw my consent.

Today's date:

Name:

Name clarification:

Yes, thank you, I want information about the results of the study and, therefore, leave my email address to get research results:
.....

If you have questions:

Anna Gerge, 0709-549810

Appendix C. Pictures and Figures

Pictures I-Va,b depicting worrying (pictures a) respectively reassuring clinical situations (pictures b)	145
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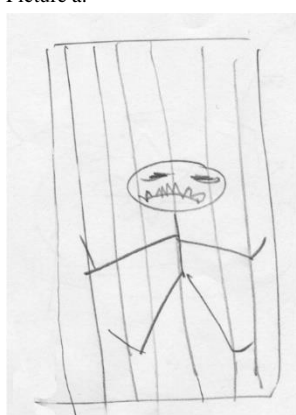
Pictures I-Va,b depicting worrying (pictures a) respectively reassuring clinical situations (pictures b) (Gerge, 2017).



Picture a.



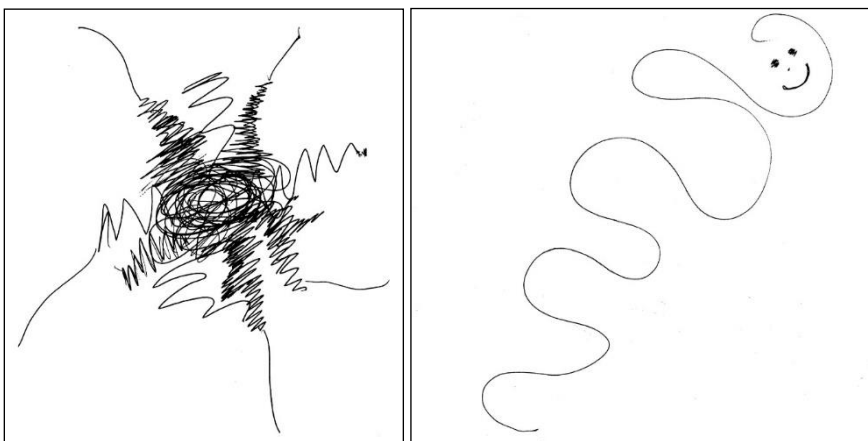
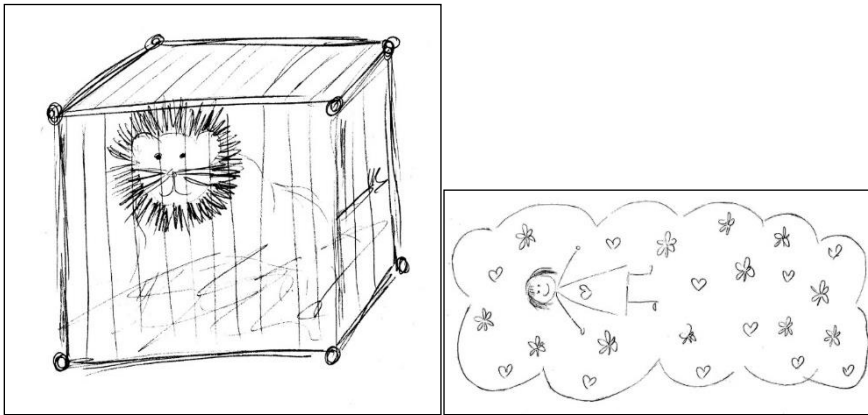
Picture b



Picture a.



Picture b.



Picture a.

Picture b.

Pictures VIa,b exemplifying the mandala drawings before (a) and after an in-depth resource oriented hypnotic induction (b) (Gerge, 2017).

In picture VIb, according to the informant, important to add the root system, the flying birds after the hypnotic experience.

Picture a.



Picture b.



Figure 1 screening formula of pictorial artefacts, exemplified by picture IIIa (in the article picture I).

Profession, health care profession:

.....

Male: Female:

Basic psychotherapeutic exam (level 1.), lic. psychotherapist, **Inclination: PDT**, Integrative, CBT
(put an X where it is appropriate).

Any art(s) therapy alignment:

.....

Picture I

1. The picture depicts:

.....

2. If I was this drawing, I would say, my message is:


.....

3. In this picture there is absence of ..., what needs to be added? (answer from your felt sense level):

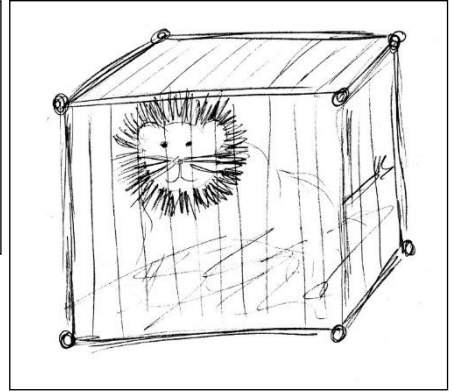
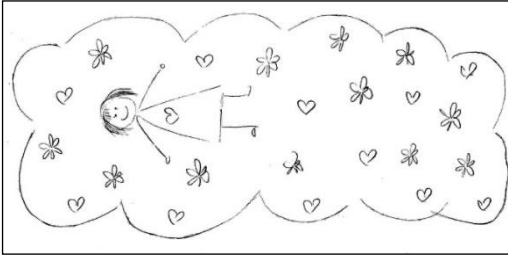
.....

NOTE !, In pictures which describe a safe neuroception we seldom experience that something is missing.

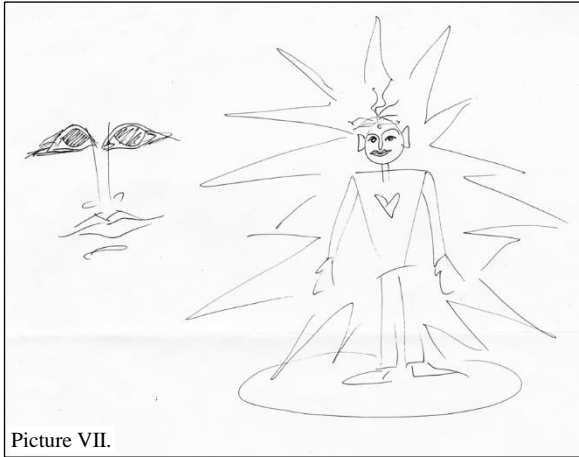
For questions 4. - 11. (below), select A, B or C, do not answer questions you do not think are relevant, for example do not answer number 6, as these pictures are not color images:

	4. How is this picture made? quality of line, patterns etc.	
	5. How is this picture balanced? what is in the center?	
	6. Certain colors?	
	7. Which states and body positions?	
	8. Which affects/emotions?	
	9. Which symbols (including both primary and secondary metaphors)?	
	10. Secondary metaphors/ symbols for the self (trees, houses, persons, animals, flowers, hearts)	
	11. Existential themes:	

The pictures used in Study 2b. validation of the SATPA, safety assessment tool of pictorial artefacts with 116 non-clinical informants (Gerge, Gattino, & Pedersen, 2017, submitted).

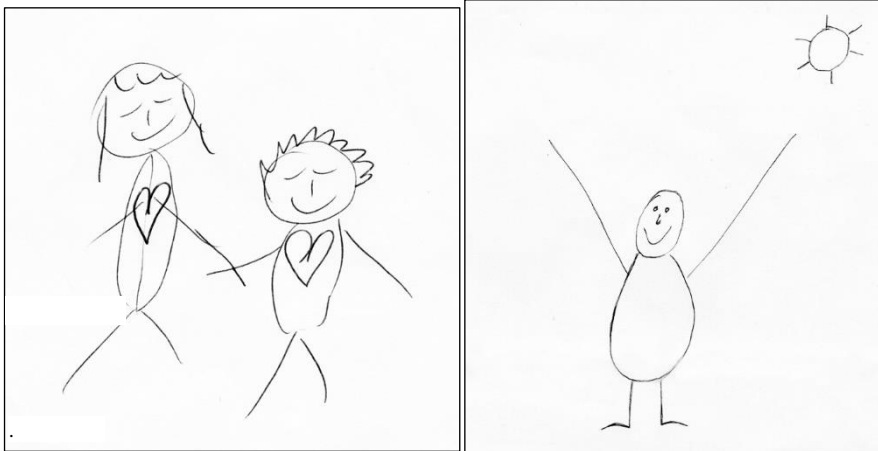


Examples of pictures from study 2c. Example of a reassuring picture that was difficult to evaluate correctly:

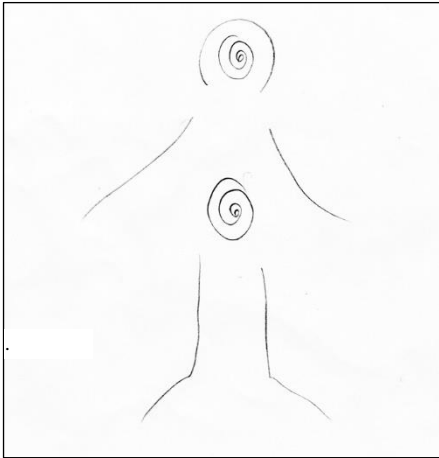


Picture VII.

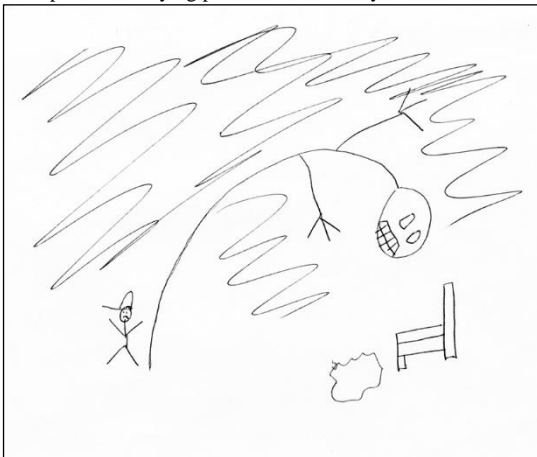
Examples of reassuring pictures that was easy to evaluate correctly:



Example of a worrying picture that was difficult to evaluate correctly:



Example of a worrying picture that was easy to evaluate correctly:



Pictures exemplifying the changes before-after the KMR-intervention (Wärja, Bergmark, & Bonde, 2012, Wärja, 2018, in press) analysed in (Gerge, Wärja, Gattino, & Pedersen, 2017, submitted).





Examples from Gerge, Wårja, and Pedersen (2017) of client paintings before-after partaking in an arts-based psychotherapy intervention (Wårja, Bergmark, & Bonde, 2012; Wårja, 2018). The researchers' aesthetic responses when working with the Rx6-method are added:



Client picture before treatment

AG: They have cut me in pieces. The soil is burning, and even the sun is blackened. I am standing in the middle of this.

MW: I am angry! Enraged at life! And scared! It is the solar eclipse. The day of wrath. I must fight!



Client picture after treatment

AG: The fire is out and my heart can rest in the world. It bumps around a bit on the nice waves.

MW: I am no longer angry. I embrace life. Love has triumphed. I am resurrected. All the powers of nature carry me. I have faith and trust!

Appendix D. **Sheets for gathering of pictorial artefacts**

1. Think about a meeting with a client / patient / family you had as a therapist that you experienced as disturbing and worrying.

Make a picture of how it made you feel / how you feel when you think about it now:

(1-2 minutes)

If this picture would hang at a museum, what title would it have?

.....

Anna Gerge 2016

2. Think of a meeting with a client / patient / family you had as a therapist where you felt that you really could be of help for the person / family.

Make a picture of how it made you feel / how you feel when you think about it now:

(1-2 minutes)

If this picture would hang at a museum, what title would it have?

.....

Anna Gerge 2016

Appendix E. Co-author Statements



CO-AUTHOR STATEMENT

AALBORG UNIVERSITY
DENMARK

The Doctoral School of Social Sciences
Date of template: 14 December 2017
Case No.: 2013-569-00017
Document no.: 612213

Title of paper	Analyzing pictorial artefacts from psychotherapy and art therapy when overcoming stress and trauma.
Journal	The arts in psychotherapy, 54, 56-68. doi: 10.1016/j.aip.2017.02.001
Published	2017

<p>Description of PhD student's contribution Name of PhD student: Anna Gerge</p> <p>First author. Drafted the manuscript, analysed data, and wrote the article in collaboration with last author. Read and approved the final manuscript.</p>
<p>Description of co-author's contribution Name of co-author: Inge Nygaard Pedersen</p> <p>Last author. Analysed data and contributed to the writing and content of the article. Read and approved the final manuscript.</p>
<p>Description of co-author's contribution (if applicable) Name of co-author:</p>
<p>Description of co-author's contribution (if applicable) Name of co-author:</p>

PhD student	Anna Gerge
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Date <u>12/12-2017</u>	Signature <u>Anna Gerge</u>
Co-author	Inge Nygaard Pedersen
I hereby declare that the above information is correct	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Co-author	
I hereby declare that the above information is correct	Yes <input type="checkbox"/> No <input type="checkbox"/>
Date _____	Signature _____
Co-author	
I hereby declare that the above information is correct	Yes <input type="checkbox"/> No <input type="checkbox"/>
Date _____	Signature _____



AALBORG UNIVERSITY
DENMARK

The Doctoral School of Social Sciences
Date of template: 14 December 2017
Case No.: 2013-569-00017
Document no.: 612213

CO-AUTHOR STATEMENT

Title of paper	What do we See when Looking at a Picture? – Preliminary Evidence of Validity in a Recently-Developed Safety Assessment Tool of Pictorial Artefacts, (SATPA).
Journal	Arts in Psychotherapy
Published	Submitted

<p>Description of PhD student's contribution Name of PhD student: Anna Gerge</p> <p>First author. Drafted the manuscript, analysed data, and wrote the article in collaboration with co-authors. Read and approved the final manuscript.</p>
<p>Description of co-author's contribution Name of co-author: Gustavo Gattino</p> <p>Performed data management and statistical calculations, and contributed to the statistical analysis section of the article. Read and approved the final manuscript.</p>
<p>Description of co-author's contribution (if applicable) Name of co-author: Inge Nygaard Pedersen</p> <p>Last author. Analysed data and contributed to the writing and content of the article. Read and approved the final manuscript.</p>
<p>Description of co-author's contribution (if applicable) Name of co-author: I</p>

PhD student	Anna Gerge		
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Co-author	Gustavo Gattino		
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Date		Signature	



AALBORG UNIVERSITY
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The Doctoral School of Social Sciences
Date of template: 14 December 2017
Case No.: 2013-569-00017
Document no.: 612213

CO-AUTHOR STATEMENT

Title of paper	The Body in the Mind: the Appearance of the Phenomenological Self Assessed through Pictures Before and After an Arts-based Psychotherapy Intervention for Gynaecological Cancer Survivors
Journal	Arts in Psychotherapy
Published	Submitted

<p>Description of PhD student's contribution Name of PhD student: Anna Gerge</p> <p>First author. Drafted the manuscript, analysed data, and wrote the article in collaboration with co-authors. Read and approved the final manuscript.</p>
<p>Description of co-author's contribution Name of co-author: Margareta Wärja</p> <p>Contributed to the writing and content of the article, drafted the study design used in the inquiry of this article. Read and approved the final manuscript.</p>
<p>Description of co-author's contribution (if applicable) Name of co-author: Gustavo Gattino</p> <p>Performed data management and statistical calculations, and contributed to the statistical analysis section of the article. Read and approved the final manuscript.</p>
<p>Description of co-author's contribution (if applicable) Name of co-author: Inge Nygaard Pedersen</p> <p>Last author. Analysed data and contributed to the writing and content of the article. Read and approved the final manuscript.</p>

PhD student	Anna Gerge		
I hereby declare that the above information is correct		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
18/12-2017		Anna Gerge	
Date	Signature		
Co-author	Margareta Wärja		
I hereby declare that the above information is correct		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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Date	Signature		
Co-author	Gustavo Gattino		
I hereby declare that the above information is correct		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
08/12/2017		Gustavo Gattino	
Date	Signature		
Co-author	Inge Nygaard Pedersen		
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The Doctoral School of Social Sciences
Date of template: 18 December 2017
Case No.: 2013-569-00017
Document no.: 612213

CO-AUTHOR STATEMENT

Title of paper	Using aesthetic response - A poetic inquiry to expand knowing. Part I: The Rx6-Method.
Journal	Voices: A World Forum for Music Therapy, 17(1), http://dx.doi.org/10.15845/voices.v17i1.890 .
Published	2017

<p>Description of PhD student's contribution Name of PhD student: Anna Gerge</p> <p>First author. Drafted the manuscript, analysed data, and wrote the article in collaboration with co-authors. Read and approved the final manuscript.</p>
<p>Description of co-author's contribution Name of co-author: Margareta Wärja</p> <p>Analysed data. Contributed to the writing and content of the article, drafted the study design used in the inquiry of this article. Read and approved the final manuscript.</p>
<p>Description of co-author's contribution (if applicable) Name of co-author: Inge Nygaard Pedersen</p> <p>Last author. Contributed to the writing and content of the article. Read and approved the final manuscript.</p>
<p>Description of co-author's contribution (if applicable) Name of co-author:</p>

PhD student	Anna Gerge
I hereby declare that the above information is correct	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Date	18/12-2017
Signature	<i>Anna Gerge</i>
Co-author	Margareta Wärja
I hereby declare that the above information is correct	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Date	13/12-2017
Signature	<i>Margareta Wärja</i>
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I hereby declare that the above information is correct	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Date	11/12-2017
Signature	<i>Inge Nygaard Pedersen</i>
Co-author	
I hereby declare that the above information is correct	Yes <input type="checkbox"/> No <input type="checkbox"/>
Date	
Signature	



AALBORG UNIVERSITY
DENMARK

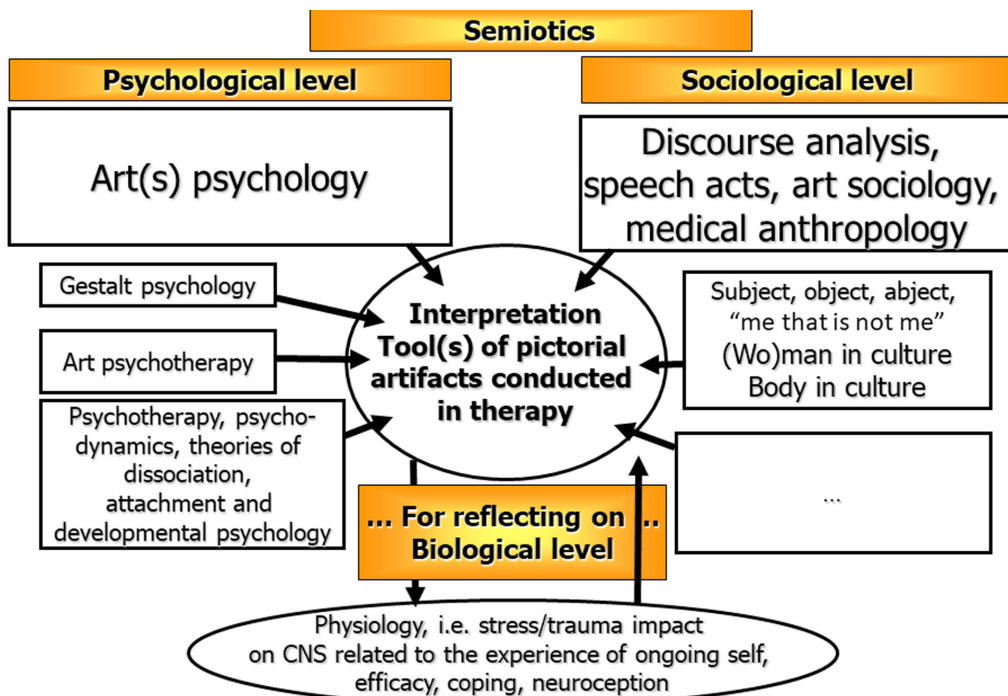
The Doctoral School of Social Sciences
Date of template: 18 December 2017
Case No.: 2013-569-00017
Document no.: 612213

CO-AUTHOR STATEMENT

Title of paper	Using Aesthetic response, a poetic inquiry to expand knowing. Part II: Some theoretical perspectives on arts-based research.
Journal	Voices: A World Forum for Music Therapy, 17(1), doi: 10.15845/voices.v17i1.913
Published	2017

<p>Description of PhD student's contribution Name of PhD student: Anna Gerge</p> <p>First author. Drafted the manuscript, and wrote the article in collaboration with co-authors. Read and approved the final manuscript.</p>
<p>Description of co-author's contribution Name of co-author: Margareta Wärja</p> <p>Contributed to the writing and content of the article. Read and approved the final manuscript.</p>
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<p>Description of co-author's contribution (if applicable) Name of co-author:</p>

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SUMMARY

Based in a neurophenomenological approach, the thesis describes the rationale for a newly developed tool named the Safety Assessment Tool of Pictorial Artefacts (SATPA) and its internal and external validation, where it was used to evaluate paintings related to experiences of gynecological cancer survivors, as seen through their paintings of their bodies.

The developed SATPA offers 11 clearly defined perspectives based on the assumption that pictorial artefacts could be used as proxy measures to detect patterns of neuroception, a concept developed by Porges (2001, 2011), relating to activation levels of the central nervous system, and to experienced appraisals of safety and threat.

Main findings are:

A proposed connection between experienced safety and positive affects, detectable in pictorial artefacts, PAs and the SATPA for assessing levels of perceived safety in PAs.

The value of the picture as a rich source of information.

The general human capacity of appraisal of PAs, since different categories of evaluators such as laypeople and health professionals, rated the pictures similarly to the art therapists.

An additional finding relates to the drawings from the internal validation, N = 269, depicting reassuring respectively worrying professional meetings and the value of the picture for indicating the professional strain clinicians experience during their daily routines.